2nd EUROMICRO CONFERENCE on
SOFTWARE MAINTENANCE AND REENGINEERING

and

6th REENGINEERING FORUM

March 8-11, 1998, Florence, Italy
Conference Location

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sponsored by:

Euromicro   Reengineering Forum 1998

 IEEE Computer Society , **Task Force on Information Technology, Technical Council on Software Engineering**

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in cooperation with:

[CESVIT](), [Rete Regionale Alta Tecnologia]()

CNR (pending), [University of Florence (pending)](), SESA

IBM

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patroned by:
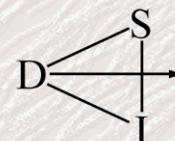
[Dept. of Systems and Informatics]() (DSI), Faculty of Engineering, TABOO,

AICA, DeQualitate, UNINFO, Jackson

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▶

▶ Program

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▶ Pre-Definitive Program (24/2/98)

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ABOUT THE CONFERENCE

The purpose of the working conference is to promote discussion and interaction about a series of topics which are yet underrepresented. We are particularly interested in exchanging concepts, prototypes, research ideas, and other results which could contribute to the academic arena and also benefit business and industrial community. Researcher, practitioners, technology transition experts, project managers, developers and users of tools, are all welcome.

CSMR conference was started with the basic idea of promoting discussion and interaction about a series of topics that are yet under-represented; but with a special attention to the community of software engineering and at the maintenance and reengineering. These aspects have in the academic community a large audience.
This year the CSMR is very glad to host the Reengineering Forum. REF since long time tries to combine industry/research review of the state of the art and the state of the practice in reengineering software, systems, and business process.

We trust that most of the results produced by the research community have to be shared with those obtained by in the industry. While the concrete experience of the industrial partners is strongly relevant for better understanding the real problems that still exist. In this, a synergic mechanism for making more constructive and well-focused researches can be established for discussing about the most innovative solutions regarding: reverse engineering, system assessment, year 2000, data reengineering, software architecture, tool architecture, program understanding, etc.

The joint conference is pleased to host some selected keynote speakers whose on the basis of their experience will provide a clear overview and hits about the general problems of software engineering, reengineering and year 2000. The conference will also include the 1998 presentation of the Wayne Stevens Award and the Stevens Lecture on Software Development Methods. This annual award recognizes outstanding contributions to the literature or practice of methods for software development, and the lecture focuses on advances in the use of methods. Past recipients include Tony Wasserman, David Harel, and

Michael Jackson. Presented by the IWCASE industry association.

The conference is based on more than 40 full paper presentations, two open forum sections and some industrial sections. One mainly focussed on ESSI Projects of European Commission, the other on the so called Reverse Engineering Demonstration Project. It consists in the comparison of several reverse engineering tools and techniques on the basis of a unique problem.

For these reasons the combined conference is the perfect occasion for key people in the reengineering and reverse engineering fields. It provides the a wonderful opportunity for interaction among industrial, academic, practitioners, system professionals, technology transition experts, project managers, developers and users of tools; who are looking for, or developing, solutions to cope with existing and future problems.

TOPIC OF INTEREST

Topics of interest include but are not restricted to:

- Maintenance and Reengineering Tools (CARE-Tools),
- Reverse Engineering Tools,
- Support of Reengineering Tasks by CASE-Tools,
- Software Reusability,
- Software Evolution, Migration and Maintenance Strategies,
- Maintainability of Programming Languages (e.g.., OOPLs),
- Maintenance Metrics,
- Maintenance and Reengineering of KBS,
- Design for Maintenance,
- Preventive Maintenance,
- Personnel Aspects of Maintenance (Motivation, Team building),
- Third Party Maintenance,
- Empirical Results about the Maintenance Situation in Businesses,
- Tele-Maintenance (Concepts, Experiences, Use of New Technologies),
- Models and Methods for Error Prediction,
- Measurement of Software Quality,
- Formal Methods,
- Reengineering and Reverse Engineering Concepts,
- Experiences from Redesign and Reengineering Projects,
- Millennium Problem (Year 2000),
- Euro Problem,
- Organizational Framework and Models for "RE"-Projects,
- Version and Configuration Management,
- Legal Aspects and Jurisdiction,
- Organization and Management of Large Maintenance Projects,
- Software Offloading,

Related Areas such as Software Documentation.

IMPORTANT DATES

Please see the registration and the accommodation forms.
The conference 8-11 March, 1998.

The deadline for CSMR98 submissions is Sept. 15, 1997.
Authors of CSMR98 will be notified of acceptance by Nov.25, 1997.
The camera ready versions of CSMR98 papers have to be send within Jan. 5, 1998.

1998 STEVENS LECTURE ON SOFTWARE DEVELOPMENT METHODS

The joint conference is pleased to host the 1998 presentation of the Wayne Stevens Award and the Stevens Lecture on Software Development Methods. This annual award recognizes outstanding contributions to the literature or practice of methods for software development, and the lecture focuses on advances in the use of methods. Past recipients include Tony Wasserman, David Harel, and Michael Jackson. Presented by the IWCASE industry association.

This award lecture is named in memory of Wayne Stevens (1944-1993), a highly-respected consultant, author, pioneer, and advocate of the practical application of software methods and tools. His 1974 article "Structured Design" was the first published on the topic and has been widely reprinted from the IBM Systems Journal. He was the author of the books Software Design: Concepts and Methods (Prentice-Hall Intl, 1991) and Using Structured Design (Wiley, 1981). His last article "Data Flow Analysis and Design" appears in the Encyclopedia of Software Engineering (Wiley, 1994). Stevens was the chief architect of IBM's application
development methodology.

The Stevens Lecture is presented by IWCASE, the international association which sponsors the Software Technology and Engineering Practice (STEP) conference.

For information please contact http://www.reengineer.org/ref98/.

CSMR98, SPECIAL INDUSTRIAL SESSION

Industrial sessions of special interest proposed by delegates will be welcome.
Please send suggestions to the program chair before the end of December, 1998.

General Time Frame
The conference will run from Sunday 8th to Wednesday 11th.
Registration will start on Sunday 8th at the 16:00 and continues till 18:00.
Conference will start at the 18:00 of Sunday 8th with the official opening.

The registration desk will be also open in the morning from 8:00 to 9:00 of Monday and Tuesday.
The conference will close its activities Wednesday 11th at the 18:00.

Services Provided
Information boards will be placed at the registration area for current news and interparticipant communications.
Lunches and coffee breaks are included in the registration feee and will be served at the conference location.
The conference Dinner is also covered by the registration fee. Partners can buy additional tickets for the dinner and for lunch at the registration desk.
A list of suggested Restaurants with their respective menus will be available at the registration desk for helping you in selecting place to have your dinner. A direct link with a Travel Agency will be available.

Climate
The weather in Florence in March is very nice, in Marh we are at the beginning of the spring.

Social Program
During the conference the following events are scheduled.
On Tuesday 10th the conference dinner will be organized.
Walking in Florence is an exciting experience. Please Visit WWW pages related to conference location on the conference WWW page.
Travel Agency NewTours will be happy to help you in selecting one of the several opportunities offered by the wonderful Florence (Phone +39-55-33611, Fax: +39-55-3361250, +39-55-3361350).

For any issue please contact:

Secretary: csmr98@aguirre.ing.unifi.it

Local Organization

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This page: http://www.dsi.unifi.it/~nesi/csmr98.html

Work in Progress

Fabrizio Fioravanti   *-- Last modified -- 19/1/1998*

Florence Touristic Information

Florence is a wonderful city placed in the Earth of Tuscany, at about 300 Km far from Rome and Milan and at about 90 Km from the Tirrenian sea. Arno river crosses the whole city .

Tours could be organized with the Agency by BUS or by feet to visit: Boboli Garden, the Dome, Giotto Tower, The Old Bridge, Michelangelo Vista Point, Belvedere, Cappelle Medicee, S. Croce Church, S. Miniato Church, Fiesole Village, S. Gimignano Village, The Chianti Vine Area, the Old Market Area, Siena Village, Museum with the David of Michelangelo, (Accademia Gallery), Uffizi Museum, Medieval Arms Museum, Archeological Museum, and more than 100 churches along the town. etc.

Walking in Florence is an exciting experience. Please Visit WWW pages related to conference location on the conference WWW page.
Travel Agency NewTours will be happy to help you in selecting one of the several opportunities offered by the wonderful Florence (Phone +39-55-33611, Fax: +39-55-3361250, +39-55-3361350).

Please visit Florence as well

|	
Museums	Piazza della Signoria
Galleria degli Uffizi	Ponte Vecchio
Florence	A walk
Cathedral	Tuscany
Consulates	Useful Information

 CSMR98-REF98 Home Page

General Informations

Florence is a wonderful city placed in the Earth of Tuscany, at about 300 Km far from Rome and Milan and at about 90 Km from the Tirrenian sea (more touristic information)
The conference will take place at Palazzo degli Affari, in the center of Florence.
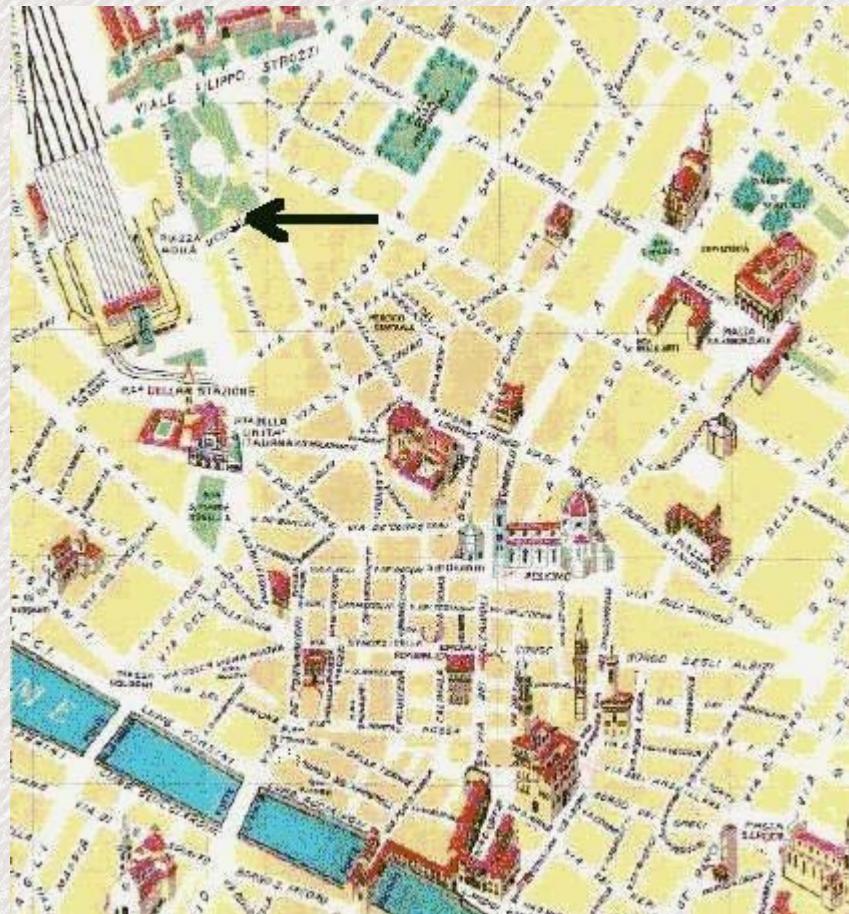
For a more detailed map of Florence click here

Enquiries about the working conference arrangements should be directed to:

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email: fantechi@dsi.dsi.unifi.it

Information about accomodation:

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email: fantechi@dsi.dsi.unifi.it

Touristic and General Information:

[CESVIT (High-Tech Agency)](#),
Via Giovanni del Pian Dei Carpini, 50127 Firenze, Italy
Tel: +39-55-4294254, Fax: +39-55-4294220

email: campanai@cesvit.it

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PALAZZO DEGLI AFFARI DI FIRENZE

The Congress will be held in Palazzo degli Affari, Piazza Adua 2, Firenze.

It is located near the Railway Station Santa Maria Novella and it is at walking distance from downtown. Near the Palazzo degli Affari there exist large (paying) parking areas.

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2nd EUROMICRO CONFERENCE on SOFTWARE MAINTENANCE AND REENGINEERING

and
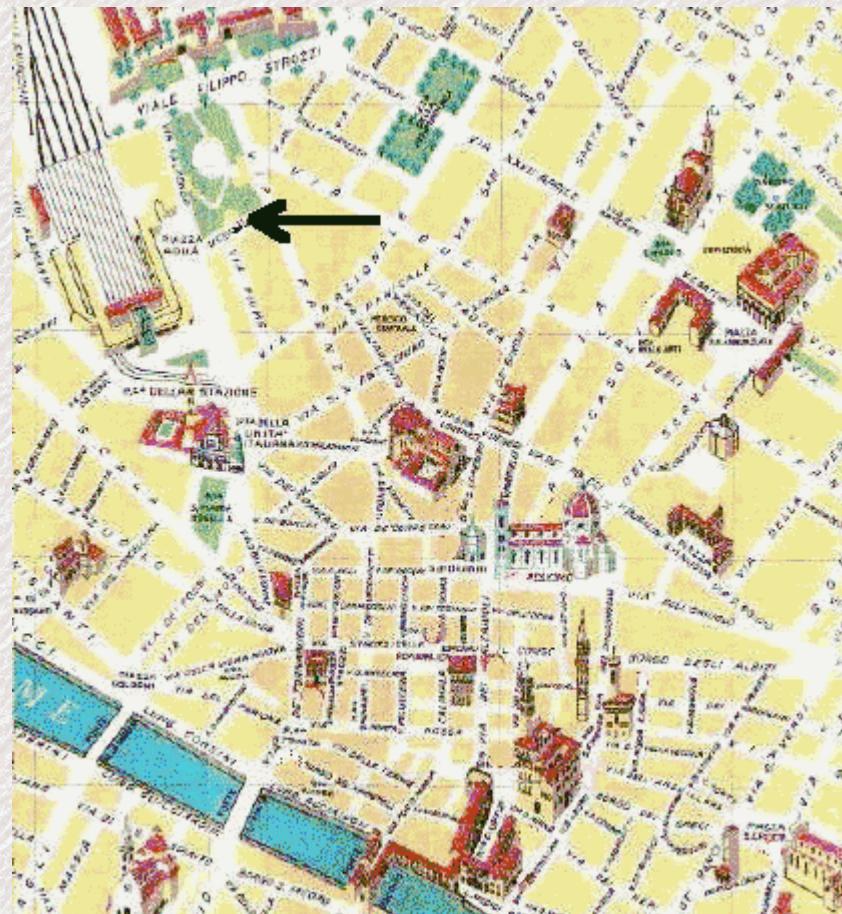
6th Reengineering Forum
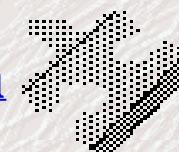
March 8-11, 1998, Florence, Italy
Conference Location

Conference Secretary

Secretary: ✉ csmr98@aguirre.ing.unifi.it

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Home Page: http://www.dsi.unifi.it/~nesi/csmr98.html

Euromicro Registration Form:Florence, Italy, March 8-11, 1998

CSMR 98: 2nd EUROMICRO CONFERENCE on SOFTWARE MAINTENANCE AND REENGINEERING   &

REF98: 6th REENGINEERING FORUM

```
Family Name: _____  Title:_____
Name:_____
Name of Institution: _____
Street: _____
ZIP Code and City: _____
Country: _____
Phone: _____  Fax: _____
E-Mail: _____
IEEE member number: _____
Euromicro Number: _____
```

Registration Fees:

The registration can be performed in two sites:
at Euromicro for Europe and the rest of the world with this **Euromicro registration form** or
by means of REF for north americans by using a **REF registration form** in REF www site.
A registration fee includes: the coffee breaks and lunches for the days of the conference and a ticket for the conference dinner (additional tickets for the conference dinner can be booked by sending an email to csmr98@aguirre.ing.unifi.it).

	Registration at EUROMICRO in NLGs
Euromicro or IEEE members before the **5th of January**	**975 NLG**
Euromicro of IEEE members after the **5th of January**	**1125 NLG**
Non members before the **5th of January**	**1170 NLG**
Non members after the **5th of January**	**1346 NLG**

The registration fees are quoted in Dutch Guilders (NLG) or USA Dollars (US$) in the REF registration form.

Authors presenting more than one paper have to add an additional of 60% for each paper over the first (the additional fee does not include an additional conference kit and tickets).

Cancellation up to 1st February, 1998, 90% refund.

Cancellation up to 15th February, 1998, 10% refund.

I am paying: Total _____ at _____EUROMICRO

Date:_____ Signature:_____

Payment:

1) By Credit Card

```
      _____ EuroCard, ____ MasterCard   _____  Access   _____   Visa
     Card n. _____ Expiry Date_____
     Cardholder_____
     Signature of Cardholder _____   Date _____
```

2) By cheque for NLG _____ made payable to EUROMICRO -- Apeldoorn -- The Netherlands

NB: Please specify participant's name and company on cheque. *Eurocheques must be signed on the back.*

3) By bank draft to account No. 59.31.42.063 of EUROMICRO, ABN AMRO Bank, Apeldoorn, The Netherlands.

```
     Transfer NLG _____
     From Bank_____
     Account No._____
```

NB: Please specify participant's name and company on the bank draft..

EUROMICRO

Att: Mrs Chiquita Snippe-Marlisa
P.O. Box 2346, 7301 EA Apeldoorn
The Netherlands
Tel.: +31-55-5795503
Fax: +31-55-5795509
e-mail: euromicro@standby.nl
http://europub.ict.tuwien.ac.at/index.htm

Registration form

CSMR98-REF98 8-11 March, FLORENCE, ITALY

Hotel Accommodation Form

Planned Deadline: January 5, 1998

Please book the hotel before that date otherwise it could be strongly hard to find a free room in Florence for the conference days.

```
Family Name: _____
Name: _____
Name of Institution: _____
Street: _____
ZIP Code and City: _____
Country: _____
Phone: _____Fax: _____
E-Mail: _____
```

ACCOMPANYING PERSON(S):

```
1. Family Name: _____     Name: _____
2. Family Name: _____     Name: _____
```

ACCOMMODATION (In Italian Liras):

All request must be accompanied by a deposit, as specified in the table below +25.000 Itl Liras for agent fees and mailed directly to Newtours:

Hotel	Single	Double	Double (single use)
Grand Hotel Baglioni (****)	219000 Lit.	318.000 Lit.	285.000 Lit.
Grand Hotel Cavour (***)	N.A.	220.000 Lit.	195.000 Lit.
Hotel Corona d'Italia (***)	180.000 Lit.	220.000 Lit.	200.000 Lit.

All prices include the breakfast. Please see the location of the hotel selected with respect to the Conference site, take a [map](). For reference Hotel Baglioni is distant about 350 mt. from the conference location.
The indicates rates, in Italian Liras, are valid for the year 1998 and includes one overnight stay, continental breakfast, taxes, V.A.T. The first night deposit must be mailed to Newtours **within January 5, 1998**.
Only few single rooms are available therefore double for single use will be reserved. Newtours reserves the right to book rooms either in another hotel if the

requested hotel is fully booked.

Please Book:

```
Hotel: _____Baglioni(****),_____Cavour(***), _____ Corona(***)
No:_____single room/double single use, _____ double

Date of arrival: _____ Date of departure: _____

First night deposit Lit. _____
Agent fees    Lit. 25.000 _____
Total hotel reservation  _____
```

Payment:

1) Money Transfer: sending the amount of Lit. _____ by Bank Transfer on:

     Cassa di Risparmio di Firenze, Ag.n.8
     Via il Prato 109R, 50100 Firenze, Italy
     Account Nr: cc. 6608/00 (ABI 6160 - CAB 2808)
     Account Name: NEWTOURS (ref. CSMR98-REF98)

     Please, send a copy of money order (with your name and affiliation)

2) By credit Card:

    ____ America Express, ____ Visa, ____ Mastercard(eurocard), ____ DinersClub
Card n. _____ Expiry Date _____
Cardholder_____
Signature of Cardholder _____ Date _____

3) By Cheque: out to NewTours S.r.L.

No refund of deposit will be made without a written cancellation (by e-mail or fax).
Cancellation up to 10 February, 1998, 75 % refund. After no refund.

Date _____ Signature_____

Form to be sent to:

NewTours S.r.l.
Please cite: CSMR98+REF98

Via S. Donato 20
50127 Firenze, ITALY
Phone +39-55-33611
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E-Mail: Newtours@Mail.Newtours-CMO.it
WWW: http://www.Newtours-CMO.it

Conference WWW page: http://www.dsi.unifi.it/~nesi/csmr98.html

[Home Page](#)

CONFERENCE PROGRAM COMMITTEE

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Please also refers to CSMR98 Organizing Chair

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D. Natale, I;
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S. Nocentini, I;
M. Pezzé, I;
P.T. Poon, USA;
L. Richter, CH;
D. Rombach, D;
G. Sechi, I;
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A. Stoyen, USA;
H. Taraji, USA;
J. Taramaa, SF;
H. Toetenel, NL;
G. Tsai, USA;

C. Verhoef, NL;
Y. Yamaguchi, J;
K. White, USA.

REF98 Programme Committee:

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Elliot Chikofsky, DMR TRECOM, USA;
Jon Clark, Colorado State University, USA;
James Cross, Auburn University, USA;
Alessandro Fantechi, UNIFI, Italy;
Judith Golub, Software Management Network, USA;
Franz Lehner, University Regensburg, Germany;
Paolo Nesi, UNIFI, Italy;
Lutz Richter, Universitaet Zuerich, Switzerland;
Chris Sittenauer, Northrop Grumman, USA;
Homa Taraji, Aerospace Corporation, USA;
Chris Verhoef, University of Amsterdam, The Netherlands;
Karen White, TASC Inc., USA.

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and

6th REENGINEERING FORUM
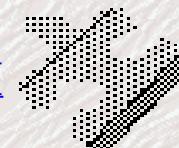
March 8-11, 1998, Florence, Italy

Preliminary Program

(as of 16 January 1997)

Note: Additional Reengineering Forum presentations and CSMR industrial speakers will be added during December and January.

[C] CSMR98 presentations
[R] REF98 presentations
[*] items pending confirmation

8 March 1998

(16:00-17:30) Registration

(17:30-18:00) Opening Conference

(18:00-18:30) Activity Plan

9 March 1998

(9:00-10:00) Keynote Speaker (Chair: Paolo Nesi & Franz Lehner)

- A Life-Cycle for Legacy Systems,

  Prof. Aniello Cimitile, University of Salerno, I

(10:00-10:50) Session A1: Year 2000 Problem (Chair: Ger Bakker, TriLoc Software Engineering, The Netherlands)

- [C] Variable Classification Technique for Software Maintenance and Application to The Year 2000 Problem (Keiko Kawabe, Akihiko Matsuo, Sanya Uehara - Fujitsu Laboratories Ltd. JP - Akira Ogawa - Fujitsu Ltd. - JP)
- [R*] From "Y2K" to Data Warehouses [and other beneficial impacts of the millennium problem] (Daniel Aebi, Christian Schucan, ETH Zurich - SW)

(10:50-11:10) Coffee Break

(11:10-12:50) Session A2: Requirements and Specification Evolution (Chair: Lutz Richter, Institut fuer Informatik - Universitaet Zuerich, SW)

- [C] Requirements Evolution in the Midst of Environmental Change A Managed Approach (Wing Lam, M. Loomes - University of Hertfordshire - UK)
- [C] A Method for Assessing Legacy Systems for Evolution (Jane Ransom, Ian Sommerville, Ian Warren - Lancaster University - UK)
- [C] System Specification Reengineering Using the SpecView Tool (Tereza G. Kirner, Rogeria C. Gratao - Federal University of Sao Carlos - BR)
- [C] A Tool Supporting the Re-Design of Legacy Applications (Katja Cremer - RWTH Aachen- D)

(12:50-14:05) Lunch

(14:05-15:20) Session A3: Reuse and Object Oriented Techniques (Chair: Juan Antonio de la Puente, Technical University of Madrid, E)

- [C] A Dependence-Based Representation for Concurrent Object-Oriented Software Maintenance (Jianjun Zhao - Fukouka Institute of Technology - Jingde Cheng, Kazuo Ushijima - Kyushu University - JP)
- [C] OOA Metrics for the Unified Modeling Language (Michele Marchesi - Universita' di Cagliari - I)
- [C] Protection Reconfiguration for Reusable Software (Christian Damsgaarg Jensen, D. Hagimont - Universite Joseph Fourier - F)

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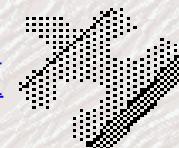
March 8-11, 1998, Florence, Italy

Final Program

(as of 24 February 1998)
Note: Some changes regarding the Reengineering Forum presentations could be made

[C] CSMR98 presentations
[R] REF98 presentations
[*] items pending confirmation

8 March 1998

(16:00-17:30) Registration

(17:30-18:00) Opening Conference

(18:00-18:30) Activity Plan

9 March 1998

(9:00-10:00) Keynote Speaker (Chair: Paolo Nesi & Franz Lehner)

- A Life-Cycle for Legacy Systems,

  Prof. Aniello Cimitile, University of Salerno, I

(10:00-10:50) Session A1: Year 2000 Problem (Chair: Ger Bakker, TriLoc Software Engineering, The Netherlands)

- [C] Variable Classification Technique for Software Maintenance and Application to The Year 2000 Problem (Keiko Kawabe, Akihiko Matsuo, Sanya Uehara - Fujitsu Laboratories Ltd. JP - Akira Ogawa - Fujitsu Ltd. - JP)
- [R*] From "Y2K" to Data Warehouses [and other beneficial impacts of the millennium problem] (Daniel Aebi, Christian Schucan, ETH Zurich - SW)

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(11:10-12:50) Session A2: Requirements and Specification Evolution (Chair: Lutz Richter, Institut fuer Informatik - Universitaet Zuerich, SW)

- [C] Requirements Evolution in the Midst of Environmental Change A Managed Approach (Wing Lam, M. Loomes - University of Hertfordshire - UK)
- [C] A Method for Assessing Legacy Systems for Evolution (Jane Ransom, Ian Sommerville, Ian Warren - Lancaster University - UK)
- [C] System Specification Reengineering Using the SpecView Tool (Tereza G. Kirner, Rogeria C. Gratao - Federal University of Sao Carlos - BR)
- [C] A Tool Supporting the Re-Design of Legacy Applications (Katja Cremer - RWTH Aachen- D)

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(14:05-15:20) Session A3: Reuse and Object Oriented Techniques (Chair: Juan Antonio de la Puente, Technical University of Madrid, E)

- [C] A Dependence-Based Representation for Concurrent Object-Oriented Software Maintenance (Jianjun Zhao - Fukouka Institute of Technology - Jingde Cheng, Kazuo Ushijima - Kyushu University - JP)
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400	$1,016	$1,508	$2,036	$2,484	$2,852	$3,260	$3,628	$3,956
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latex8.tex -- the main macro set
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```
% ----------------------------------------------------------------
%
% $Id: latex8.sty,v 1.2 1995/09/15 15:31:13 ienne Exp $
%
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%
% ----------------------------------------------------------------
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%
% ----------------------------------------------------------------
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% ============
%
% use as
%   \documentclass[times,10pt,twocolumn]{article}
%   \usepackage{latex8}
%   \usepackage{times}
%
% ----------------------------------------------------------------
% with LaTeX 2.09:
% ===============
%
% use as
%   \documentstyle[times,art10,twocolumn,latex8]{article}
%
% ----------------------------------------------------------------
```

```
% with both versions:
% ==================
%
% specify \pagestyle{empty} to omit page numbers in the final
% version
%
% specify references as
%   \bibliographystyle{latex8}
%   \bibliography{...your files...}
%
% use Section{} and SubSection{} instead of standard section{}
%   and subsection{} to obtain headings in the form
%   "1.3. My heading"
%
% ----------------------------------------------------------------

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% in some sites the name of the helvetica bold font may differ,
% change the name here:
\font\tenhv  = phvb at 10pt
%\font\tenhv  = phvb7t at 10pt

% eleven point times bold required for second-order headings
% \font\elvbf  = cmbx10 scaled 1100
\font\elvbf  = ptmb scaled 1100

% set dimensions of columns, gap between columns, and paragraph indent
\setlength{\textheight}{8.875in}
\setlength{\textwidth}{6.875in}
\setlength{\columnsep}{0.3125in}
\setlength{\topmargin}{0in}
\setlength{\headheight}{0in}
\setlength{\headsep}{0in}
\setlength{\parindent}{1pc}
\setlength{\oddsidemargin}{-.304in}
\setlength{\evensidemargin}{-.304in}

% memento from size10.clo
% \normalsize{\@setfontsize\normalsize\@xpt\@xiipt}
```

```
% \small{\@setfontsize\small\@ixpt{11}}
% \footnotesize{\@setfontsize\footnotesize\@viiipt{9.5}}
% \scriptsize{\@setfontsize\scriptsize\@viipt\@viiipt}
% \tiny{\@setfontsize\tiny\@vpt\@vipt}
% \large{\@setfontsize\large\@xiipt{14}}
% \Large{\@setfontsize\Large\@xivpt{18}}
% \LARGE{\@setfontsize\LARGE\@xviipt{22}}
% \huge{\@setfontsize\huge\@xxpt{25}}
% \Huge{\@setfontsize\Huge\@xxvpt{30}}

\def\@maketitle
  {
  \newpage
  \null
  \vskip .375in
  \begin{center}
    {\Large \bf \@title \par}
    % additional two empty lines at the end of the title
    \vspace*{24pt}
    {
    \large
    \lineskip .5em
    \begin{tabular}[t]{c}
      \@author
    \end{tabular}
    \par
    }
    % additional small space at the end of the author name
    \vskip .5em
    {
     \large
    \begin{tabular}[t]{c}
      \@affiliation
    \end{tabular}
    \par
    \ifx \@empty \@email
    \else
      \begin{tabular}{r@{~}l}
        E-mail: & {\tt \@email}
      \end{tabular}
      \par
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```latex
    \fi
    }
  % additional empty line at the end of the title block
  \vspace*{12pt}
 \end{center}
 }

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   {%
   \centerline{\large\bf Abstract}%
   \vspace*{12pt}%
   \it%
   }

\def\endabstract
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   % additional empty line at the end of the abstract
   \vspace*{12pt}
   }

\def\affiliation#1{\gdef\@affiliation{#1}} \gdef\@affiliation{}

\def\email#1{\gdef\@email{#1}}
\gdef\@email{}

\newlength{\@ctmp}
\newlength{\@figindent}
\setlength{\@figindent}{1pc}

\long\def\@makecaption#1#2{
   \vskip 10pt
   \setbox\@tempboxa\hbox{\tenhv\noindent #1.~#2}
   \setlength{\@ctmp}{\hsize}
   \addtolength{\@ctmp}{-\@figindent}\addtolength{\@ctmp}{-\@figindent}
   % IF longer than one indented paragraph line
   \ifdim \wd\@tempboxa >\@ctmp
     % THEN set as an indented paragraph
     \begin{list}{}{\leftmargin\@figindent \rightmargin\leftmargin}
       \item[]\tenhv #1.~#2\par
     \end{list}
   \else
```

```
      % ELSE center
      \hbox to\hsize{\hfil\box\@tempboxa\hfil}
   \fi}


% correct heading spacing and type
\def\section{\@startsection {section}{1}{\z@}
   {14pt plus 2pt minus 2pt}{14pt plus 2pt minus 2pt} {\large\bf}}
\def\subsection{\@startsection {subsection}{2}{\z@}
   {13pt plus 2pt minus 2pt}{13pt plus 2pt minus 2pt} {\elvbf}}


% add the period after section numbers
\newcommand{\Section}[1]{\section{\hskip -1em.~#1}}
\newcommand{\SubSection}[1]{\subsection{\hskip -1em.~#1}}


% end of file latex8.sty
% ----------------------------------------------------------------


================ END OF latex8.sty FILE ====================


================ BEGIN FILE: latex8.tex ====================


%
% $Description: Author guidelines and sample document in LaTeX 2.09$
%
% $Author: ienne $
% $Date: 1995/09/15 15:20:59 $
% $Revision: 1.4 $
%

\documentstyle[times,art10,twocolumn,latex8]{article}


%-----------------------------------------------------------------------
% take the % away on next line to produce the final camera-ready version
%\pagestyle{empty}


%-----------------------------------------------------------------------
\begin{document}

\title{\LaTeX\ Author Guidelines
      for {\boldmath $8.5 \times 11$-Inch} Proceedings Manuscripts}
```

\author{Paolo Ienne\\
Swiss Federal Institute of Technology\\ Microcomputing Laboratory \\ IN-F
Ecublens, 1015 Lausanne, Switzerland\\ Paolo.Ienne@di.epfl.ch\\
% For a paper whose authors are all at the same institution,
% omit the following lines up until the closing ``}''.
% Additional authors and addresses can be added with ``\and'',
% just like the second author.
\and
Second Author\\
Institution2\\
First line of institution2 address\\ Second line of institution2 address\\
SecondAuthor@institution2.com\\
}

\maketitle
\thispagestyle{empty}

\begin{abstract}
   The ABSTRACT is to be in fully-justified italicized text, at the top
   of the left-hand column, below the author and affiliation
   information. Use the word ``Abstract'' as the title, in 12-point
   Times, boldface type, centered relative to the column, initially
   capitalized. The abstract is to be in 10-point, single-spaced type.
   The abstract may be up to 3 inches (7.62 cm) long. Leave two blank
   lines after the Abstract, then begin the main text.
\end{abstract}

%---
\Section{Introduction}

Please follow the steps outlined below when submitting your
manuscript to the IEEE Computer Society Press. Note there have
been some changes to the measurements from previous instructions.

%---
\Section{Instructions}

Please read the following carefully.

%---
\SubSection{Language}

All manuscripts must be in English.

%---
\SubSection{Printing your paper}

Print your properly formatted text on high-quality, 8.5×11-inch
white printer paper. A4 paper is also acceptable, but please leave the
extra 0.5 inch (1.27 cm) at the BOTTOM of the page.

%---
\SubSection{Margins and page numbering}

All printed material, including text, illustrations, and charts, must be
kept within a print area 6-7/8 inches (17.5 cm) wide by 8-7/8 inches
(22.54 cm) high. Do not write or print anything outside the print area.
Number your pages lightly, in pencil, on the upper right-hand corners of
the BACKS of the pages (for example, 1/10, 2/10, or 1 of 10, 2 of 10, and
so forth). Please do not write on the fronts of the pages, nor on the
lower halves of the backs of the pages.

%---
\SubSection{Formatting your paper}

All text must be in a two-column format. The total allowable width of
the text area is 6-7/8 inches (17.5 cm) wide by 8-7/8 inches (22.54 cm)
high. Columns are to be 3-1/4 inches (8.25 cm) wide, with a 5/16 inch
(0.8 cm) space between them. The main title (on the first page) should
begin 1.0 inch (2.54 cm) from the top edge of the page. The second and
following pages should begin 1.0 inch (2.54 cm) from the top edge. On
all pages, the bottom margin should be 1-1/8 inches (2.86 cm) from the
bottom edge of the page for 8.5×11-inch paper; for A4 paper,
approximately 1-5/8 inches (4.13 cm) from the bottom edge of the page.

%---
\SubSection{Type-style and fonts}

Wherever Times is specified, Times Roman may also be used. If neither is
available on your word processor, please use the font closest in
appearance to Times that you have access to.

MAIN TITLE. Center the title 1-3/8 inches (3.49 cm) from the top edge of the first page. The title should be in Times 14-point, boldface type. Capitalize the first letter of nouns, pronouns, verbs, adjectives, and adverbs; do not capitalize articles, coordinate conjunctions, or prepositions (unless the title begins with such a word). Leave two blank lines after the title.

AUTHOR NAME(s) and AFFILIATION(s) are to be centered beneath the title and printed in Times 12-point, non-boldface type. This information is to be followed by two blank lines.

The ABSTRACT and MAIN TEXT are to be in a two-column format.

MAIN TEXT. Type main text in 10-point Times, single-spaced. Do NOT use double-spacing. All paragraphs should be indented 1 pica (approx. 1/6 inch or 0.422 cm). Make sure your text is fully justified---that is, flush left and flush right. Please do not place any additional blank lines between paragraphs. Figure and table captions should be 10-point Helvetica boldface type as in
\begin{figure}[h]
  \caption{Example of caption.}
\end{figure}

\noindent Long captions should be set as in
\begin{figure}[h]
  \caption{Example of long caption requiring more than one line. It is
    not typed centered but aligned on both sides and indented with an
    additional margin on both sides of 1~pica.}
\end{figure}

\noindent Callouts should be 9-point Helvetica, non-boldface type. Initially capitalize only the first word of section titles and first-, second-, and third-order headings.

FIRST-ORDER HEADINGS. (For example, {\large \bf 1. Introduction}) should be Times 12-point boldface, initially capitalized, flush left, with one blank line before, and one blank line after.

SECOND-ORDER HEADINGS. (For example, {\elvbf 1.1. Database elements}) should be Times 11-point boldface, initially capitalized, flush left, with one blank line before, and one after. If you require a third-order

heading (we discourage it), use 10-point Times, boldface, initially capitalized, flush left, preceded by one blank line, followed by a period and your text on the same line.

```
%--------------------------------------------------------------------------
\SubSection{Footnotes}
```

Please use footnotes sparingly%
\footnote
  {%
    Or, better still, try to avoid footnotes altogether. To help your
    readers, avoid using footnotes altogether and include necessary
    peripheral observations in the text (within parentheses, if you
    prefer, as in this sentence).
  }
and place them at the bottom of the column on the page on which they are referenced. Use Times 8-point type, single-spaced.

```
%--------------------------------------------------------------------------
\SubSection{References}
```

List and number all bibliographical references in 9-point Times, single-spaced, at the end of your paper. When referenced in the text, enclose the citation number in square brackets, for example~\cite{ex1}. Where appropriate, include the name(s) of editors of referenced books.

```
%--------------------------------------------------------------------------
\SubSection{Illustrations, graphs, and photographs}
```

All graphics should be centered. Your artwork must be in place in the article (preferably printed as part of the text rather than pasted up). If you are using photographs and are able to have halftones made at a print shop, use a 100- or 110-line screen. If you must use plain photos, they must be pasted onto your manuscript. Use rubber cement to affix the images in place. Black and white, clear, glossy-finish photos are preferable to color. Supply the best quality photographs and illustrations possible. Penciled lines and very fine lines do not reproduce well. Remember, the quality of the book cannot be better than the originals provided. Do NOT use tape on your pages!

```
%--------------------------------------------------------------------------
```

\SubSection{Color}

The use of color on interior pages (that is, pages other
than the cover) is prohibitively expensive. We publish interior pages in
color only when it is specifically requested and budgeted for by the
conference organizers. DO NOT SUBMIT COLOR IMAGES IN YOUR
PAPERS UNLESS SPECIFICALLY INSTRUCTED TO DO SO.

%---
\SubSection{Symbols}

If your word processor or typewriter cannot produce Greek letters,
mathematical symbols, or other graphical elements, please use
pressure-sensitive (self-adhesive) rub-on symbols or letters (available
in most stationery stores, art stores, or graphics shops).

%---
\SubSection{Copyright forms}

You must include your signed IEEE copyright release form when you submit
your finished paper. We MUST have this form before your paper can be
published in the proceedings.

%---
\SubSection{Conclusions}

Please direct any questions to the production editor in charge of these
proceedings at the IEEE Computer Society Press: Phone (714) 821-8380, or
Fax (714) 761-1784.

%---
\nocite{ex1,ex2}
\bibliographystyle{latex8}
\bibliography{latex8}

\end{document}

===================== END FILE: latex8.tex =======================

===================== BEGIN FILE: latex8.bib ======================

```
%
%  $Description: Sample bibliography$
%
%  $Author: ienne $
%  $Date: 1995/09/15 15:19:53 $
%  $Revision: 1.3 $
%

@Article{ex1,
  author =   "Author, Ivan Marc",
  title =   "Some Related Article {I} Wrote",
  journal =   "Some Fine Journal",
  month = "January",
  number = "7",
  year =   "1999",
  volume =   "99",
  pages =   "1-100",
}


@Book{ex2,
  author =   "Expert, Andreas Nikolaos",
  title =   "A Book He Wrote",
  publisher =   "His Publisher",
  address = "Erewhon, NC",
  year =   "1999"
}

==================== END FILE: latex8.bib =====================

=================== BEGIN FILE: latex8.bst =====================

% ----------------------------------------------------------------
%
% $Id: latex8.bst,v 1.1 1995/09/15 15:13:49 ienne Exp $
%
% by Paolo.Ienne@di.epfl.ch
%
% ----------------------------------------------------------------
%
% no guarantee is given that the format corresponds perfectly to
```

```
% IEEE 8.5" x 11" Proceedings, but most features should be ok.
%
% --------------------------------------------------------------
%
% `latex8' from BibTeX standard bibliography style `abbrv'
% version 0.99a for BibTeX versions 0.99a or later, LaTeX version 2.09.
% Copyright (C) 1985, all rights reserved.
% Copying of this file is authorized only if either
% (1) you make absolutely no changes to your copy, including name, or
% (2) if you do make changes, you name it something other than
% btxbst.doc, plain.bst, unsrt.bst, alpha.bst, and abbrv.bst.
% This restriction helps ensure that all standard styles are identical.
% The file btxbst.doc has the documentation for this style.

ENTRY
  { address
    author
    booktitle
    chapter
    edition
    editor
    howpublished
    institution
    journal
    key
    month
    note
    number
    organization
    pages
    publisher
    school
    series
    title
    type
    volume
    year
  }
  {}
  { label }
```

```
INTEGERS { output.state before.all mid.sentence after.sentence after.block }

FUNCTION {init.state.consts}
{ #0 'before.all :=
  #1 'mid.sentence :=
  #2 'after.sentence :=
  #3 'after.block :=
}

STRINGS { s t }

FUNCTION {output.nonnull}
{ 's :=
  output.state mid.sentence =
    { ", " * write$ }
    { output.state after.block =
  { add.period$ write$
   newline$
   "\newblock " write$
  }
  { output.state before.all =
     'write$
     { add.period$ " " * write$ }
    if$
  }
     if$
     mid.sentence 'output.state :=
    }
  if$
  s
}

FUNCTION {output}
{ duplicate$ empty$
   'pop$
   'output.nonnull
  if$
}

FUNCTION {output.check}
{ 't :=
```

```
  duplicate$ empty$
    { pop$ "empty " t * " in " * cite$ * warning$ }
    'output.nonnull
  if$
}

FUNCTION {output.bibitem}
{ newline$
  "\bibitem{" write$
  cite$ write$
  "}" write$
  newline$
  ""
  before.all 'output.state :=
}

FUNCTION {fin.entry}
{ add.period$
  write$
  newline$
}

FUNCTION {new.block}
{ output.state before.all =
    'skip$
    { after.block 'output.state := }
  if$
}

FUNCTION {new.sentence}
{ output.state after.block =
    'skip$
    { output.state before.all =
  'skip$
  { after.sentence 'output.state := }
      if$
    }
  if$
}

FUNCTION {not}
```

```
{   { #0 }
    { #1 }
  if$
}

FUNCTION {and}
{   'skip$
    { pop$ #0 }
  if$
}

FUNCTION {or}
{   { pop$ #1 }
    'skip$
  if$
}

FUNCTION {new.block.checka}
{ empty$
    'skip$
    'new.block
  if$
}

FUNCTION {new.block.checkb}
{ empty$
  swap$ empty$
  and
    'skip$
    'new.block
  if$
}

FUNCTION {new.sentence.checka}
{ empty$
    'skip$
    'new.sentence
  if$
}

FUNCTION {new.sentence.checkb}
```

```
{ empty$
  swap$ empty$
  and
    'skip$
    'new.sentence
  if$
}

FUNCTION {field.or.null}
{ duplicate$ empty$
    { pop$ "" }
    'skip$
  if$
}

FUNCTION {emphasize}
{ duplicate$ empty$
    { pop$ "" }
    { "{\em " swap$ * "}" * }
  if$
}

INTEGERS { nameptr namesleft numnames }

FUNCTION {format.names}
{ 's :=
  #1 'nameptr :=
  s num.names$ 'numnames :=
  numnames 'namesleft :=
    { namesleft #0 > }
    { s nameptr "{f.~}{vv~}{ll}{, jj}" format.name$ 't :=
      nameptr #1 >
  { namesleft #1 >
      { ", " * t * }
      { numnames #2 >
  { "," * }
  'skip$
      if$
      t "others" =
  { " et~al." * }
  { " and " * t * }
```

```
       if$
     }
    if$
  }
  't
     if$
    nameptr #1 + 'nameptr :=
    namesleft #1 - 'namesleft :=
   }
  while$
}

FUNCTION {format.authors}
{ author empty$
   { "" }
   { author format.names }
 if$
}

FUNCTION {format.editors}
{ editor empty$
   { "" }
   { editor format.names
    editor num.names$ #1 >
 { ", editors" * }
 { ", editor" * }
    if$
   }
 if$
}

FUNCTION {format.title}
{ title empty$
   { "" }
   { title "t" change.case$ }
 if$
}

FUNCTION {n.dashify}
{ 't :=
  ""
```

```
     { t empty$ not }
     { t #1 #1 substring$ "-" =
    { t #1 #2 substring$ "--" = not
      { "--" *
        t #2 global.max$ substring$ 't :=
      }
      {   { t #1 #1 substring$ "-" = }
     { "-" *
       t #2 global.max$ substring$ 't :=
     }
        while$
      }
     if$
    }
    { t #1 #1 substring$ *
      t #2 global.max$ substring$ 't :=
    }
       if$
     }
   while$
 }

FUNCTION {format.date}
{ year empty$
   { month empty$
  { "" }
  { "there's a month but no year in " cite$ * warning$
    month
  }
     if$
   }
   { month empty$
  'year
  { month " " * year * }
     if$
   }
 if$
}

FUNCTION {format.btitle}
{ title emphasize
```

```
        }

        FUNCTION {tie.or.space.connect}
        { duplicate$ text.length$ #3 <
            { "~" }
            { " " }
          if$
          swap$ * *
        }

        FUNCTION {either.or.check}
        { empty$
            'pop$
            { "can't use both " swap$ * " fields in " * cite$ * warning$ }
          if$
        }

        FUNCTION {format.bvolume}
        { volume empty$
            { "" }
            { "volume" volume tie.or.space.connect
              series empty$
          'skip$
          { " of " * series emphasize * }
              if$
              "volume and number" number either.or.check
            }
          if$
        }

        FUNCTION {format.number.series}
        { volume empty$
            { number empty$
          { series field.or.null }
          { output.state mid.sentence =
              { "number" }
              { "Number" }
            if$
            number tie.or.space.connect
            series empty$
              { "there's a number but no series in " cite$ * warning$ }
```

```
      { " in " * series * }
     if$
   }
       if$
     }
     { "" }
   if$
 }

 FUNCTION {format.edition}
 { edition empty$
     { "" }
     { output.state mid.sentence =
   { edition "l" change.case$ " edition" * }
   { edition "t" change.case$ " edition" * }
       if$
     }
   if$
 }

 INTEGERS { multiresult }

 FUNCTION {multi.page.check}
 { 't :=
   #0 'multiresult :=
     { multiresult not
       t empty$ not
       and
     }
     { t #1 #1 substring$
       duplicate$ "-" =
       swap$ duplicate$ "," =
       swap$ "+" =
       or or
   { #1 'multiresult := }
   { t #2 global.max$ substring$ 't := }
       if$
     }
   while$
   multiresult
 }
```

```
FUNCTION {format.pages}
{ pages empty$
    { "" }
    { pages multi.page.check
 { "pages" pages n.dashify tie.or.space.connect }
 { "page" pages tie.or.space.connect }
      if$
    }
  if$
}

FUNCTION {format.vol.num.pages}
{ volume field.or.null
  number empty$
    'skip$
    { "(" number * ")" * *
      volume empty$
 { "there's a number but no volume in " cite$ * warning$ }
 'skip$
      if$
    }
  if$
  pages empty$
    'skip$
    { duplicate$ empty$
 { pop$ format.pages }
 { ":" * pages n.dashify * }
      if$
    }
  if$
}

FUNCTION {format.chapter.pages}
{ chapter empty$
    'format.pages
    { type empty$
 { "chapter" }
 { type "l" change.case$ }
      if$
      chapter tie.or.space.connect
```

```
      pages empty$
    'skip$
    { ", " * format.pages * }
      if$
    }
   if$
  }

  FUNCTION {format.in.ed.booktitle}
  { booktitle empty$
     { "" }
     { editor empty$
  { "In " booktitle emphasize * }
  { "In " format.editors * ", " * booktitle emphasize * }
     if$
    }
   if$
  }

  FUNCTION {empty.misc.check}
  { author empty$ title empty$ howpublished empty$
   month empty$ year empty$ note empty$
   and and and and and
   key empty$ not and
    { "all relevant fields are empty in " cite$ * warning$ }
    'skip$
   if$
  }

  FUNCTION {format.thesis.type}
  { type empty$
     'skip$
     { pop$
      type "t" change.case$
     }
   if$
  }

  FUNCTION {format.tr.number}
  { type empty$
     { "Technical Report" }
```

```
     'type
   if$
   number empty$
     { "t" change.case$ }
     { number tie.or.space.connect }
   if$
 }

 FUNCTION {format.article.crossref}
 { key empty$
     { journal empty$
 { "need key or journal for " cite$ * " to crossref " * crossref *
   warning$
   ""
 }
 { "In {\em " journal * "\/}" * }
     if$
   }
     { "In " key * }
   if$
   " \cite{" * crossref * "}" *
 }

 FUNCTION {format.crossref.editor}
 { editor #1 "{vv~}{ll}" format.name$
   editor num.names$ duplicate$
   #2 >
     { pop$ " et~al." * }
     { #2 <
 'skip$
 { editor #2 "{ff }{vv }{ll}{ jj}" format.name$ "others" =
     { " et~al." * }
     { " and " * editor #2 "{vv~}{ll}" format.name$ * }
   if$
 }
     if$
   }
   if$
 }

 FUNCTION {format.book.crossref}
```

```
      { volume empty$
        { "empty volume in " cite$ * "'s crossref of " * crossref * warning$
          "In "
        }
        { "Volume" volume tie.or.space.connect
          " of " *
        }
      if$
      editor empty$
      editor field.or.null author field.or.null =
      or
        { key empty$
      { series empty$
          { "need editor, key, or series for " cite$ * " to crossref " *
            crossref * warning$
            "" *
          }
          { "{\em " * series * "\/}" * }
        if$
      }
      { key * }
          if$
        }
        { format.crossref.editor * }
      if$
      " \cite{" * crossref * "}" *
    }

    FUNCTION {format.incoll.inproc.crossref}
    { editor empty$
      editor field.or.null author field.or.null =
      or
        { key empty$
      { booktitle empty$
          { "need editor, key, or booktitle for " cite$ * " to crossref " *
            crossref * warning$
            ""
          }
          { "In {\em " booktitle * "\/}" * }
        if$
      }
```

```
  { "In " key * }
     if$
   }
   { "In " format.crossref.editor * }
 if$
 " \cite{" * crossref * "}" *
}

FUNCTION {article}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  crossref missing$
    { journal emphasize "journal" output.check
      format.vol.num.pages output
      format.date "year" output.check
    }
    { format.article.crossref output.nonnull
      format.pages output
    }
  if$
  new.block
  note output
  fin.entry
}

FUNCTION {book}
{ output.bibitem
  author empty$
    { format.editors "author and editor" output.check }
    { format.authors output.nonnull
      crossref missing$
  { "author and editor" editor either.or.check }
 'skip$
     if$
    }
  if$
  new.block
  format.btitle "title" output.check
```

```
      crossref missing$
        { format.bvolume output
          new.block
          format.number.series output
          new.sentence
          publisher "publisher" output.check
          address output
        }
        { new.block
          format.book.crossref output.nonnull
        }
      if$
      format.edition output
      format.date "year" output.check
      new.block
      note output
      fin.entry
    }

    FUNCTION {booklet}
    { output.bibitem
      format.authors output
      new.block
      format.title "title" output.check
      howpublished address new.block.checkb
      howpublished output
      address output
      format.date output
      new.block
      note output
      fin.entry
    }

    FUNCTION {inbook}
    { output.bibitem
      author empty$
        { format.editors "author and editor" output.check }
        { format.authors output.nonnull
          crossref missing$
      { "author and editor" editor either.or.check }
      'skip$
```

```
      if$
     }
    if$
    new.block
    format.btitle "title" output.check
    crossref missing$
      { format.bvolume output
        format.chapter.pages "chapter and pages" output.check
        new.block
        format.number.series output
        new.sentence
        publisher "publisher" output.check
        address output
      }
      { format.chapter.pages "chapter and pages" output.check
        new.block
        format.book.crossref output.nonnull
      }
    if$
    format.edition output
    format.date "year" output.check
    new.block
    note output
    fin.entry
  }

  FUNCTION {incollection}
  { output.bibitem
    format.authors "author" output.check
    new.block
    format.title "title" output.check
    new.block
    crossref missing$
      { format.in.ed.booktitle "booktitle" output.check
        format.bvolume output
        format.number.series output
        format.chapter.pages output
        new.sentence
        publisher "publisher" output.check
        address output
        format.edition output
```

```
          format.date "year" output.check
        }
        { format.incoll.inproc.crossref output.nonnull
          format.chapter.pages output
        }
      if$
      new.block
      note output
      fin.entry
    }

    FUNCTION {inproceedings}
    { output.bibitem
      format.authors "author" output.check
      new.block
      format.title "title" output.check
      new.block
      crossref missing$
        { format.in.ed.booktitle "booktitle" output.check
          format.bvolume output
          format.number.series output
          format.pages output
          address empty$
      { organization publisher new.sentence.checkb
        organization output
        publisher output
        format.date "year" output.check
      }
        { address output.nonnull
          format.date "year" output.check
          new.sentence
          organization output
          publisher output
      }
          if$
        }
        { format.incoll.inproc.crossref output.nonnull
          format.pages output
        }
      if$
      new.block
```

```
    note output
    fin.entry
    }

    FUNCTION {conference} { inproceedings }

    FUNCTION {manual}
    { output.bibitem
     author empty$
       { organization empty$
     'skip$
     { organization output.nonnull
       address output
     }
         if$
       }
       { format.authors output.nonnull }
     if$
     new.block
     format.btitle "title" output.check
     author empty$
       { organization empty$
     { address new.block.checka
       address output
     }
     'skip$
         if$
       }
       { organization address new.block.checkb
         organization output
         address output
       }
     if$
     format.edition output
     format.date output
     new.block
     note output
     fin.entry
    }

    FUNCTION {mastersthesis}
```

```
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  "Master's thesis" format.thesis.type output.nonnull
  school "school" output.check
  address output
  format.date "year" output.check
  new.block
  note output
  fin.entry
}

FUNCTION {misc}
{ output.bibitem
  format.authors output
  title howpublished new.block.checkb
  format.title output
  howpublished new.block.checka
  howpublished output
  format.date output
  new.block
  note output
  fin.entry
  empty.misc.check
}

FUNCTION {phdthesis}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.btitle "title" output.check
  new.block
  "PhD thesis" format.thesis.type output.nonnull
  school "school" output.check
  address output
  format.date "year" output.check
  new.block
  note output
  fin.entry
```

```
        }

        FUNCTION {proceedings}
        { output.bibitem
          editor empty$
            { organization output }
            { format.editors output.nonnull }
          if$
          new.block
          format.btitle "title" output.check
          format.bvolume output
          format.number.series output
          address empty$
            { editor empty$
        { publisher new.sentence.checka }
        { organization publisher new.sentence.checkb
          organization output
        }
              if$
              publisher output
              format.date "year" output.check
            }
            { address output.nonnull
              format.date "year" output.check
              new.sentence
              editor empty$
          'skip$
          { organization output }
              if$
              publisher output
            }
          if$
          new.block
          note output
          fin.entry
        }

        FUNCTION {techreport}
        { output.bibitem
          format.authors "author" output.check
          new.block
```

```
    format.title "title" output.check
    new.block
    format.tr.number output.nonnull
    institution "institution" output.check
    address output
    format.date "year" output.check
    new.block
    note output
    fin.entry
}

FUNCTION {unpublished}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  note "note" output.check
  format.date output
  fin.entry
}

FUNCTION {default.type} { misc }

MACRO {jan} {"Jan."}

MACRO {feb} {"Feb."}

MACRO {mar} {"Mar."}

MACRO {apr} {"Apr."}

MACRO {may} {"May"}

MACRO {jun} {"June"}

MACRO {jul} {"July"}

MACRO {aug} {"Aug."}

MACRO {sep} {"Sept."}
```

MACRO {oct} {"Oct."}

MACRO {nov} {"Nov."}

MACRO {dec} {"Dec."}

MACRO {acmcs} {"ACM Comput. Surv."}

MACRO {acta} {"Acta Inf."}

MACRO {cacm} {"Commun. ACM"}

MACRO {ibmjrd} {"IBM J. Res. Dev."}

MACRO {ibmsj} {"IBM Syst.~J."}

MACRO {ieeese} {"IEEE Trans. Softw. Eng."}

MACRO {ieeetc} {"IEEE Trans. Comput."}

MACRO {ieeetcad}
 {"IEEE Trans. Comput.-Aided Design Integrated Circuits"}

MACRO {ipl} {"Inf. Process. Lett."}

MACRO {jacm} {"J.~ACM"}

MACRO {jcss} {"J.~Comput. Syst. Sci."}

MACRO {scp} {"Sci. Comput. Programming"}

MACRO {sicomp} {"SIAM J. Comput."}

MACRO {tocs} {"ACM Trans. Comput. Syst."}

MACRO {tods} {"ACM Trans. Database Syst."}

MACRO {tog} {"ACM Trans. Gr."}

MACRO {toms} {"ACM Trans. Math. Softw."}

```
MACRO {toois} {"ACM Trans. Office Inf. Syst."}

MACRO {toplas} {"ACM Trans. Prog. Lang. Syst."}

MACRO {tcs} {"Theoretical Comput. Sci."}

READ

FUNCTION {sortify}
{ purify$
  "l" change.case$
}

INTEGERS { len }

FUNCTION {chop.word}
{ 's :=
  'len :=
  s #1 len substring$ =
    { s len #1 + global.max$ substring$ }
    's
  if$
}

FUNCTION {sort.format.names}
{ 's :=
  #1 'nameptr :=
  ""
  s num.names$ 'numnames :=
  numnames 'namesleft :=
    { namesleft #0 > }
    { nameptr #1 >
  { "   " * }
  'skip$
    if$
    s nameptr "{vv{ } }{ll{ }}{  f{ }}{  jj{ }}" format.name$ 't :=
    nameptr numnames = t "others" = and
  { "et al" * }
  { t sortify * }
    if$
```

```
      nameptr #1 + 'nameptr :=
      namesleft #1 - 'namesleft :=
    }
  while$
}

FUNCTION {sort.format.title}
{ 't :=
  "A " #2
    "An " #3
      "The " #4 t chop.word
    chop.word
  chop.word
  sortify
  #1 global.max$ substring$
}

FUNCTION {author.sort}
{ author empty$
    { key empty$
  { "to sort, need author or key in " cite$ * warning$
    ""
  }
  { key sortify }
    if$
  }
    { author sort.format.names }
  if$
}

FUNCTION {author.editor.sort}
{ author empty$
    { editor empty$
  { key empty$
    { "to sort, need author, editor, or key in " cite$ * warning$
      ""
    }
    { key sortify }
  if$
  }
  { editor sort.format.names }
```

```
      if$
    }
    { author sort.format.names }
  if$
}

FUNCTION {author.organization.sort}
{ author empty$
    { organization empty$
  { key empty$
      { "to sort, need author, organization, or key in " cite$ * warning$
        ""
      }
      { key sortify }
    if$
  }
  { "The " #4 organization chop.word sortify }
      if$
    }
    { author sort.format.names }
  if$
}

FUNCTION {editor.organization.sort}
{ editor empty$
    { organization empty$
  { key empty$
      { "to sort, need editor, organization, or key in " cite$ * warning$
        ""
      }
      { key sortify }
    if$
  }
  { "The " #4 organization chop.word sortify }
      if$
    }
    { editor sort.format.names }
  if$
}

FUNCTION {presort}
```

```
{ type$ "book" =
 type$ "inbook" =
 or
   'author.editor.sort
   { type$ "proceedings" =
'editor.organization.sort
 { type$ "manual" =
   'author.organization.sort
   'author.sort
  if$
}
    if$
  }
 if$
 "   "
 *
 year field.or.null sortify
 *
 "   "
 *
 title field.or.null
 sort.format.title
 *
 #1 entry.max$ substring$
 'sort.key$ :=
}

ITERATE {presort}

SORT

STRINGS { longest.label }

INTEGERS { number.label longest.label.width }

FUNCTION {initialize.longest.label}
{ "" 'longest.label :=
 #1 'number.label :=
 #0 'longest.label.width :=
}
```

```
FUNCTION {longest.label.pass}
{ number.label int.to.str$ 'label :=
  number.label #1 + 'number.label :=
  label width$ longest.label.width >
    { label 'longest.label :=
      label width$ 'longest.label.width :=
    }
    'skip$
  if$
}

EXECUTE {initialize.longest.label}

ITERATE {longest.label.pass}

FUNCTION {begin.bib}
{ preamble$ empty$
    'skip$
    { preamble$ write$ newline$ }
  if$
  "\begin{thebibliography}{" longest.label *
  "}\setlength{\itemsep}{-1ex}\small" * write$ newline$
}

EXECUTE {begin.bib}

EXECUTE {init.state.consts}

ITERATE {call.type$}

FUNCTION {end.bib}
{ newline$
  "\end{thebibliography}" write$ newline$
}

EXECUTE {end.bib}

% end of file latex8.bst
% ---------------------------------------------------------------
```

==================== END FILE: latex8.bst ======================

========= file: LATEX8PS.TXT =======================

```
%!PS-Adobe-2.0
%%Creator: dvips 5.47 Copyright 1986-91 Radical Eye Software
%%Title: latex8.dvi
%%Pages: 2 1
%%BoundingBox: 0 0 612 792
%%DocumentFonts: Times-Roman Times-Bold Times-Italic Helvetica-Bold
%%EndComments
%%BeginProcSet: /usr/local/lib/tex/ps/psfig.pro
/TeXscale { 65536 div } def

/DocumentInitState [ matrix currentmatrix currentlinewidth currentlinecap
currentlinejoin currentdash currentgray currentmiterlimit ] cvx def

/startTexFig {
 /SavedState save def
 userdict maxlength dict begin
 currentpoint transform

 DocumentInitState setmiterlimit setgray setdash setlinejoin setlinecap
  setlinewidth setmatrix

 itransform moveto

 /ury exch TeXscale def
 /urx exch TeXscale def
 /lly exch TeXscale def
 /llx exch TeXscale def
 /y exch TeXscale def
 /x exch TeXscale def

 currentpoint /cy exch def /cx exch def

 /sx x urx llx sub div def  % scaling for x
 /sy y ury lly sub div def % scaling for y

 sx sy scale   % scale by (sx,sy)
```

```
     cx sx div llx sub
     cy sy div ury sub translate

    /DefFigCTM matrix currentmatrix def

    /initmatrix {
     DefFigCTM setmatrix
    } def
    /defaultmatrix {
     DefFigCTM exch copy
    } def

    /initgraphics {
     DocumentInitState setmiterlimit setgray setdash
      setlinejoin setlinecap setlinewidth setmatrix
     DefFigCTM setmatrix
    } def

    /showpage {
     initgraphics
    } def
    /erasepage {
      initgraphics
     } def
    /copypage {} def

   } def
   /clipFig {
    currentpoint 6 2 roll
    newpath 4 copy
    4 2 roll moveto
    6 -1 roll exch lineto
    exch lineto
    exch lineto
    closepath clip
    newpath
    moveto
   } def
   /doclip { llx lly urx ury clipFig } def
   /endTexFig {
    end SavedState restore
```

```
} def
%%EndProcSet
%%BeginProcSet: tex.pro
/TeXDict 200 dict def TeXDict begin /N /def load def /B{bind def}N /S /exch
load def /X{S N}B /TR /translate load N /isls false N /vsize 10 N /@rigin{
isls{[0 1 -1 0 0 0]concat}if 72 Resolution div 72 VResolution div neg scale
Resolution VResolution vsize neg mul TR matrix currentmatrix dup dup 4 get
round 4 exch put dup dup 5 get round 5 exch put setmatrix}N /@letter{/vsize 10
N}B /@landscape{isls true N /vsize -1 N}B /@a4{/vsize 10.6929133858 N}B /@a3{
/vsize 15.5531 N}B /@ledger{/vsize 16 N}B /@legal{/vsize 13 N}B /@manualfeed{
statusdict /manualfeed true put}B /@copies{/#copies X}B /FMat[1 0 0 -1 0 0]N
/FBB[0 0 0 0]N /nn 0 N /IE 0 N /ctr 0 N /df-tail{/nn 8 dict N nn begin
/FontType 3 N /FontMatrix fntrx N /FontBBox FBB N string /base X array
/BitMaps X /BuildChar{CharBuilder}N /Encoding IE N end dup{/foo setfont}2
array copy cvx N load 0 nn put /ctr 0 N[]B /df{/sf 1 N /fntrx FMat N df-tail}
B /dfs{div /sf X /fntrx[sf 0 0 sf neg 0 0]N df-tail}B /E{pop nn dup definefont
setfont}B /ch-width{ch-data dup length 5 sub get}B /ch-height{ch-data dup
length 4 sub get}B /ch-xoff{128 ch-data dup length 3 sub get sub}B /ch-yoff{
ch-data dup length 2 sub get 127 sub}B /ch-dx{ch-data dup length 1 sub get}B
/ch-image{ch-data dup type /stringtype ne{ctr get /ctr ctr 1 add N}if}B /id 0
N /rw 0 N /rc 0 N /gp 0 N /cp 0 N /G 0 N /sf 0 N /CharBuilder{save 3 1 roll S
dup /base get 2 index get S /BitMaps get S get /ch-data X pop /ctr 0 N ch-dx 0
ch-xoff ch-yoff ch-height sub ch-xoff ch-width add ch-yoff setcachedevice
ch-width ch-height true[1 0 0 -1 -.1 ch-xoff sub ch-yoff .1 add]{ch-image}
imagemask restore}B /D{/cc X dup type /stringtype ne{[]}if nn /base get cc ctr
put nn /BitMaps get S ctr S sf 1 ne{dup dup length 1 sub dup 2 index S get sf
div put}if put /ctr ctr 1 add N}B /I{cc 1 add D}B /bop{userdict /bop-hook
known{bop-hook}if /SI save N @rigin 0 0 moveto}N /eop{clear SI restore
showpage userdict /eop-hook known{eop-hook}if}N /@start{userdict /start-hook
known{start-hook}if /VResolution X /Resolution X 1000 div /DVImag X /IE 256
array N 0 1 255{IE S 1 string dup 0 3 index put cvn put}for}N /p /show load N
/RMat[1 0 0 -1 0 0]N /BDot 260 string N /rulex 0 N /ruley 0 N /v{/ruley X
/rulex X V}B /V statusdict begin /product where{pop product dup length 7 ge{0
7 getinterval(Display)eq}{pop false}ifelse}{false}ifelse end{{gsave TR -.1 -.1
TR 1 1 scale rulex ruley false RMat{BDot}imagemask grestore}}{{gsave TR -.1
-.1 TR rulex ruley scale 1 1 false RMat{BDot}imagemask grestore}}ifelse B /a{
moveto}B /delta 0 N /tail{dup /delta X 0 rmoveto}B /M{S p delta add tail}B /b{
S p tail}B /c{-4 M}B /d{-3 M}B /e{-2 M}B /f{-1 M}B /g{0 M}B /h{1 M}B /i{2 M}B
/j{3 M}B /k{4 M}B /w{0 rmoveto}B /l{p -4 w}B /m{p -3 w}B /n{p -2 w}B /o{p -1 w
}B /q{p 1 w}B /r{p 2 w}B /s{p 3 w}B /t{p 4 w}B /x{0 S rmoveto}B /y{3 2 roll p
a}B /bos{/SS save N}B /eos{clear SS restore}B end
```

```
%%EndProcSet
%%BeginProcSet: texps.pro
TeXDict begin /rf{655360 div mul Resolution mul 7227 div /PixPerEm X findfont
dup length 1 add dict /nn X{1 index /FID ne{nn 3 1 roll put}{pop pop}ifelse}
forall 256 dict begin nn /Encoding get 0 1 255{2 copy get 3 index 2 index get
1000 mul PixPerEm div def pop}for pop pop nn /Metrics currentdict put end
/fontname X /nn dup nn definefont[PixPerEm 0 0 PixPerEm neg 0 0]makefont N
fontname{/foo setfont}2 array copy cvx N fontname load 0 nn put}N
/ObliqueSlant{dup sin S cos div neg}B /SlantFont{/foo X[1 0 foo 1 0 0]
TransFont}N /ExtendFont{/foo X 3 2 roll[S{foo div}forall]3 1 roll[foo 0 0 1 0
0]TransFont}N /TransFont{S findfont S makefont dup length dict /nn X{1 index
/FID ne{nn 3 1 roll put}{pop pop}ifelse}forall dup nn definefont pop}N end
%%EndProcSet
TeXDict begin 1000 300 300 @start /Fa [ 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 9 12 16 19 19 31
29 12 12 12 19 25 9 12 9 10 19 19 19 19 19 19 19 19 19 19 12
12 25 25 25 19 34 23 23 25 27 23 23 27 27 12 17 25 21 31 25
27 23 27 23 19 21 27 23 31 23 21 21 15 10 15 16 19 12 19 19
17 19 17 10 19 19 10 10 17 10 27 19 19 19 19 15 15 10 19 17
25 17 17 15 15 10 15 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15 19 19 6 19 19 19 19 8 21
19 12 12 19 19 0 19 19 19 9 0 20 13 12 21 21 19 33 37 0 19
0 12 12 12 12 12 12 12 12 0 12 12 0 12 12 12 33 0 0 0 0 0 0
0 0 0 0 0 0 0 0 33 0 10 0 0 0 0 21 27 35 12 0 0 0 0 0 25
0 0 0 10 0 0 10 19 25 19 0 0 0 0 ] /Times-Italic 1000 589824
rf /Fb [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 9 12 15 19 19 31 29 12 12 12 19 21 9 12 9 10
19 19 19 19 19 19 19 19 19 19 10 10 21 21 21 17 34 27 25 25
27 23 21 27 27 12 15 27 23 33 27 27 21 27 25 21 23 27 27 35
27 27 23 12 10 12 18 19 12 17 19 17 19 17 12 19 19 10 10 19
10 29 19 19 19 19 12 15 10 19 19 27 19 19 17 18 7 18 20 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 12 19 19 6 19 19 19 19 7 17 19 12 12 21 21 0 19 19 19 9
0 17 13 12 17 17 19 37 37 0 17 0 12 12 12 12 12 12 12 12 12 0
12 12 0 12 12 12 37 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 33 0 10
0 0 0 23 27 33 12 0 0 0 0 25 0 0 0 10 0 0 10 19 27 19 0
0 0 0 ] /Times-Roman 1000 589824 rf /Fc [ 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 11 14 17 17
28 26 11 11 11 17 19 8 11 8 9 17 17 17 17 17 17 17 17 17 17
9 9 19 19 19 15 31 24 22 22 24 20 18 24 24 11 13 24 20 30 24
24 18 24 22 18 20 24 24 31 24 24 20 11 9 11 16 17 11 15 17
```

15 17 15 11 17 17 9 9 17 9 26 17 17 17 17 11 13 9 17 17 24
17 17 15 16 7 16 18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 11 17 17 6 17 17 17 17 6 15 17
11 11 18 18 0 17 17 17 8 0 15 12 11 15 15 17 33 33 0 15 0 11
11 11 11 11 11 11 11 0 11 11 0 11 11 11 33 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 30 0 0 9 0 0 0 0 20 24 30 10 0 0 0 0 0 22 0 0
0 9 0 0 9 17 24 17 0 0 0 0] /Times-Roman 1000 524288 rf /Fd
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 6 8 10 12 12 21 19 8 8 8 12 14 6 8 6 7 12 12 12 12 12
12 12 12 12 12 7 7 14 14 14 11 23 18 17 17 18 15 14 18 18 8
10 18 15 22 18 18 14 18 17 14 15 18 18 24 18 18 15 8 7 8 12
12 8 11 12 11 12 11 8 12 12 7 7 12 7 19 12 12 12 12 8 10 7
12 12 18 12 12 11 12 5 12 13 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 12 12 4 12 12 12 12
4 11 12 8 14 14 0 12 12 12 6 0 11 9 8 11 11 12 25 25 0 11
0 8 8 8 8 8 8 8 8 0 8 8 0 8 8 25 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 22 0 7 0 0 0 0 15 18 22 8 0 0 0 0 0 17 0 0 0 7 0 0
7 12 18 12 0 0 0 0] /Times-Roman 1000 393216 rf /Fe [0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7 10 12 15 15 24 23 10 10 10 15 16 7 10 7 8 15 15 15 15 15
15 15 15 15 15 8 8 16 16 16 13 27 21 19 19 21 18 16 21 21 10
11 21 18 26 21 21 16 21 19 16 18 21 21 27 21 21 18 10 8 10
14 15 10 13 15 13 15 13 10 15 15 8 8 15 8 23 15 15 15 15 10
11 8 15 15 21 15 15 13 14 6 14 16 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 15 15 5 15 15
15 15 5 13 15 10 10 16 16 0 15 15 15 7 0 13 10 10 13 13 15
29 29 0 13 0 10 10 10 10 10 10 10 10 0 10 10 0 10 10 10 29
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 26 0 8 0 0 0 0 18 21 26 9 0
0 0 0 0 19 0 0 0 8 0 0 8 15 21 15 0 0 0 0] /Times-Roman 1000
458752 rf /Ff [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 12 14 20 23 23 37 30 12 14 14 16 24 12
14 12 12 23 23 23 23 23 23 23 23 23 14 14 24 24 24 25 40
30 30 30 30 28 25 32 30 12 23 30 25 35 30 32 28 32 30 28 25
30 28 39 28 28 25 14 12 14 24 23 12 23 25 23 25 23 14 25 25
12 12 23 12 37 25 25 25 25 16 23 14 25 23 32 23 23 21 16 12
16 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 14 23 23 7 23 23 23 23 10 21 23 14 14 25 25 0
23 23 23 12 0 23 15 12 21 21 23 42 42 0 25 0 14 14 14 14 14
14 14 14 0 14 14 0 14 14 14 42 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 42 0 15 0 0 0 0 25 32 42 15 0 0 0 0 0 37 0 0 0 12 0 0 12
25 39 25 0 0 0 0] /Helvetica-Bold 1000 655360 rf /Fg 1 3 df<400020C000606000

C03001801803000C0600060C0003180001B00000E00000E00001B000031800060C000C06001803
003001806000C0C0006040002013147A9320>2 D E /Fh 1 59 df<60F0F06004047C830C>58
D E /Fi [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 11 15 25 23 23 46 38 15 15 15 23 26 11 15 11
13 23 23 23 23 23 23 23 23 23 23 15 15 26 26 26 23 42 33 30
33 33 30 28 36 36 18 23 36 30 43 33 36 28 36 33 25 30 33 33
46 33 33 30 15 13 15 27 23 15 23 25 20 25 20 15 23 25 13 15
25 13 38 25 23 25 25 20 18 15 25 23 33 23 23 20 18 10 18 24
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 15 23 23 8 23 23 23 23 13 23 23 15 15 25 25 0 23 23
23 11 0 25 16 15 23 23 23 46 46 0 23 0 15 15 15 15 15 15 15
15 0 15 15 0 15 15 15 46 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 46
0 14 0 0 0 30 36 46 15 0 0 0 0 0 33 0 0 0 13 0 0 13 23 33
25 0 0 0] /Times-Bold 1000 720896 rf /Fj [0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 14 17
21 21 35 32 14 14 14 21 23 10 14 10 12 21 21 21 21 21 21 21
21 21 21 12 12 23 23 23 18 38 30 28 28 30 25 23 30 30 14 16
30 25 37 30 30 23 30 28 23 25 30 30 39 30 30 25 14 12 14 19
21 14 18 21 18 21 18 14 21 21 12 12 21 12 32 21 21 21 21 14
16 12 21 21 30 21 21 18 20 8 20 22 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 21 21 7 21 21
21 21 7 18 21 14 14 23 23 0 21 21 21 10 0 19 15 14 18 18 21
42 42 0 18 0 14 14 14 14 14 14 14 14 0 14 14 0 14 14 14 42
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 37 0 11 0 0 0 0 25 30 37 13
0 0 0 0 0 28 0 0 0 12 0 0 12 21 30 21 0 0 0 0] /Times-Roman
1000 655360 rf /Fk [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 14 17 21 21 35 32 14 14 14 21
28 10 14 10 12 21 21 21 21 21 21 21 21 21 21 14 14 28 28 28
21 38 25 25 28 30 25 25 30 30 14 18 28 23 35 28 30 25 30 25
21 23 30 25 35 25 23 23 16 12 16 18 21 14 21 21 18 21 18 12
21 21 12 12 18 12 30 21 21 21 21 16 16 12 21 18 28 18 18 16
17 11 17 22 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 16 21 21 7 21 21 21 21 9 23 21 14 14 21
21 0 21 21 21 10 0 22 15 14 23 23 21 37 42 0 21 0 14 14 14
14 14 14 14 14 0 14 14 0 14 14 14 37 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 37 0 11 0 0 0 0 23 30 39 13 0 0 0 0 0 28 0 0 0 12
0 0 12 21 28 21 0 0 0 0] /Times-Italic 1000 655360 rf /Fl
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 12 17 28 25 25 50 41 17 17 17 25 28 12 17 12 14 25 25
25 25 25 25 25 25 25 25 17 17 28 28 28 25 46 36 33 36 36 33
30 39 39 19 25 39 33 47 36 39 30 39 36 28 33 36 36 50 36 36

33 17 14 17 29 25 17 25 28 22 28 22 17 25 28 14 17 28 14 41
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% change the name here:
\font\tenhv  = phvb at 10pt
%\font\tenhv  = phvb7t at 10pt


% eleven point times bold required for second-order headings
% \font\elvbf  = cmbx10 scaled 1100
\font\elvbf  = ptmb scaled 1100
```

```
% set dimensions of columns, gap between columns, and paragraph indent
\setlength{\textheight}{8.875in}
\setlength{\textwidth}{6.875in}
\setlength{\columnsep}{0.3125in}
\setlength{\topmargin}{0in}
\setlength{\headheight}{0in}
\setlength{\headsep}{0in}
\setlength{\parindent}{1pc}
\setlength{\oddsidemargin}{-.304in}
\setlength{\evensidemargin}{-.304in}

% memento from size10.clo
% \normalsize{\@setfontsize\normalsize\@xpt\@xiipt}
% \small{\@setfontsize\small\@ixpt{11}}
% \footnotesize{\@setfontsize\footnotesize\@viiipt{9.5}}
% \scriptsize{\@setfontsize\scriptsize\@viipt\@viiipt}
% \tiny{\@setfontsize\tiny\@vpt\@vipt}
% \large{\@setfontsize\large\@xiipt{14}}
% \Large{\@setfontsize\Large\@xivpt{18}}
% \LARGE{\@setfontsize\LARGE\@xviipt{22}}
% \huge{\@setfontsize\huge\@xxpt{25}}
% \Huge{\@setfontsize\Huge\@xxvpt{30}}

\def\@maketitle
  {
  \newpage
  \null
  \vskip .375in
  \begin{center}
    {\Large \bf \@title \par}
    % additional two empty lines at the end of the title
    \vspace*{24pt}
    {
    \large
    \lineskip .5em
    \begin{tabular}[t]{c}
      \@author
    \end{tabular}
    \par
    }
```

```
      % additional small space at the end of the author name
      \vskip .5em
       {
        \large
       \begin{tabular}[t]{c}
         \@affiliation
       \end{tabular}
       \par
       \ifx \@empty \@email
       \else
         \begin{tabular}{r@{~}l}
           E-mail: & {\tt \@email}
         \end{tabular}
         \par
       \fi
       }
      % additional empty line at the end of the title block
      \vspace*{12pt}
    \end{center}
    }

\def\abstract
   {%
   \centerline{\large\bf Abstract}%
   \vspace*{12pt}%
   \it%
   }

\def\endabstract
   {
   % additional empty line at the end of the abstract
   \vspace*{12pt}
   }

\def\affiliation#1{\gdef\@affiliation{#1}} \gdef\@affiliation{}

\def\email#1{\gdef\@email{#1}}
\gdef\@email{}

\newlength{\@ctmp}
\newlength{\@figindent}
```

```
\setlength{\@figindent}{1pc}

\long\def\@makecaption#1#2{
  \vskip 10pt
  \setbox\@tempboxa\hbox{\tenhv\noindent #1.~#2}
  \setlength{\@ctmp}{\hsize}
  \addtolength{\@ctmp}{-\@figindent}\addtolength{\@ctmp}{-\@figindent}
  % IF longer than one indented paragraph line
  \ifdim \wd\@tempboxa >\@ctmp
    % THEN set as an indented paragraph
    \begin{list}{}{\leftmargin\@figindent \rightmargin\leftmargin}
      \item[]\tenhv #1.~#2\par
    \end{list}
  \else
    % ELSE center
    \hbox to\hsize{\hfil\box\@tempboxa\hfil}
  \fi}

% correct heading spacing and type
\def\section{\@startsection {section}{1}{\z@}
  {14pt plus 2pt minus 2pt}{14pt plus 2pt minus 2pt} {\large\bf}}
\def\subsection{\@startsection {subsection}{2}{\z@}
  {13pt plus 2pt minus 2pt}{13pt plus 2pt minus 2pt} {\elvbf}}

% add the period after section numbers
\newcommand{\Section}[1]{\section{\hskip -1em.~#1}}
\newcommand{\SubSection}[1]{\subsection{\hskip -1em.~#1}}

% end of file latex8.sty
% ----------------------------------------------------------------

================ END OF latex8.sty FILE ====================

================ BEGIN FILE: latex8.tex ====================

%
% $Description: Author guidelines and sample document in LaTeX 2.09$
%
% $Author: ienne $
% $Date: 1995/09/15 15:20:59 $
% $Revision: 1.4 $
```

```
%

\documentstyle[times,art10,twocolumn,latex8]{article}


%------------------------------------------------------------------------
% take the % away on next line to produce the final camera-ready version
%\pagestyle{empty}


%------------------------------------------------------------------------
\begin{document}

\title{\LaTeX\ Author Guidelines
      for {\boldmath $8.5 \times 11$-Inch} Proceedings Manuscripts}

\author{Paolo Ienne\\
Swiss Federal Institute of Technology\\ Microcomputing Laboratory \\ IN-F
Ecublens, 1015 Lausanne, Switzerland\\ Paolo.Ienne@di.epfl.ch\\
% For a paper whose authors are all at the same institution,
% omit the following lines up until the closing ``}".
% Additional authors and addresses can be added with ``\and",
% just like the second author.
\and
Second Author\\
Institution2\\
First line of institution2 address\\ Second line of institution2 address\\
SecondAuthor@institution2.com\\
}

\maketitle
\thispagestyle{empty}

\begin{abstract}
   The ABSTRACT is to be in fully-justified italicized text, at the top
   of the left-hand column, below the author and affiliation
   information. Use the word ``Abstract" as the title, in 12-point
   Times, boldface type, centered relative to the column, initially
   capitalized. The abstract is to be in 10-point, single-spaced type.
   The abstract may be up to 3 inches (7.62 cm) long. Leave two blank
   lines after the Abstract, then begin the main text.
\end{abstract}
```

%--
\Section{Introduction}

Please follow the steps outlined below when submitting your
manuscript to the IEEE Computer Society Press. Note there have
been some changes to the measurements from previous instructions.

%--
\Section{Instructions}

Please read the following carefully.

%--
\SubSection{Language}

All manuscripts must be in English.

%--
\SubSection{Printing your paper}

Print your properly formatted text on high-quality, 8.5×11-inch
white printer paper. A4 paper is also acceptable, but please leave the
extra 0.5 inch (1.27 cm) at the BOTTOM of the page.

%--
\SubSection{Margins and page numbering}

All printed material, including text, illustrations, and charts, must be
kept within a print area 6-7/8 inches (17.5 cm) wide by 8-7/8 inches
(22.54 cm) high. Do not write or print anything outside the print area.
Number your pages lightly, in pencil, on the upper right-hand corners of
the BACKS of the pages (for example, 1/10, 2/10, or 1 of 10, 2 of 10, and
so forth). Please do not write on the fronts of the pages, nor on the
lower halves of the backs of the pages.

%--
\SubSection{Formatting your paper}

All text must be in a two-column format. The total allowable width of
the text area is 6-7/8 inches (17.5 cm) wide by 8-7/8 inches (22.54 cm)
high. Columns are to be 3-1/4 inches (8.25 cm) wide, with a 5/16 inch

(0.8 cm) space between them. The main title (on the first page) should begin 1.0 inch (2.54 cm) from the top edge of the page. The second and following pages should begin 1.0 inch (2.54 cm) from the top edge. On all pages, the bottom margin should be 1-1/8 inches (2.86 cm) from the bottom edge of the page for 8.5×11-inch paper; for A4 paper, approximately 1-5/8 inches (4.13 cm) from the bottom edge of the page.

%---
\SubSection{Type-style and fonts}

Wherever Times is specified, Times Roman may also be used. If neither is available on your word processor, please use the font closest in appearance to Times that you have access to.

MAIN TITLE. Center the title 1-3/8 inches (3.49 cm) from the top edge of the first page. The title should be in Times 14-point, boldface type. Capitalize the first letter of nouns, pronouns, verbs, adjectives, and adverbs; do not capitalize articles, coordinate conjunctions, or prepositions (unless the title begins with such a word). Leave two blank lines after the title.

AUTHOR NAME(s) and AFFILIATION(s) are to be centered beneath the title and printed in Times 12-point, non-boldface type. This information is to be followed by two blank lines.

The ABSTRACT and MAIN TEXT are to be in a two-column format.

MAIN TEXT. Type main text in 10-point Times, single-spaced. Do NOT use double-spacing. All paragraphs should be indented 1 pica (approx. 1/6 inch or 0.422 cm). Make sure your text is fully justified---that is, flush left and flush right. Please do not place any additional blank lines between paragraphs. Figure and table captions should be 10-point Helvetica boldface type as in
\begin{figure}[h]
  \caption{Example of caption.}
\end{figure}

\noindent Long captions should be set as in
\begin{figure}[h]
  \caption{Example of long caption requiring more than one line. It is
    not typed centered but aligned on both sides and indented with an

additional margin on both sides of 1~pica.}
\end{figure}

\noindent Callouts should be 9-point Helvetica, non-boldface type.
Initially capitalize only the first word of section titles and first-,
second-, and third-order headings.

FIRST-ORDER HEADINGS. (For example, {\large \bf 1. Introduction})
should be Times 12-point boldface, initially capitalized, flush left,
with one blank line before, and one blank line after.

SECOND-ORDER HEADINGS. (For example, {\elvbf 1.1. Database elements})
should be Times 11-point boldface, initially capitalized, flush left,
with one blank line before, and one after. If you require a third-order
heading (we discourage it), use 10-point Times, boldface, initially
capitalized, flush left, preceded by one blank line, followed by a period
and your text on the same line.

%--
\SubSection{Footnotes}

Please use footnotes sparingly%
\footnote
  {%
    Or, better still, try to avoid footnotes altogether. To help your
    readers, avoid using footnotes altogether and include necessary
    peripheral observations in the text (within parentheses, if you
    prefer, as in this sentence).
  }
and place them at the bottom of the column on the page on which they are
referenced. Use Times 8-point type, single-spaced.

%--
\SubSection{References}

List and number all bibliographical references in 9-point Times,
single-spaced, at the end of your paper. When referenced in the text,
enclose the citation number in square brackets, for example~\cite{ex1}.
Where appropriate, include the name(s) of editors of referenced books.

%--

\SubSection{Illustrations, graphs, and photographs}

All graphics should be centered. Your artwork must be in place in the
article (preferably printed as part of the text rather than pasted up).
If you are using photographs and are able to have halftones made at a
print shop, use a 100- or 110-line screen. If you must use plain photos,
they must be pasted onto your manuscript. Use rubber cement to affix the
images in place. Black and white, clear, glossy-finish photos are
preferable to color. Supply the best quality photographs and
illustrations possible. Penciled lines and very fine lines do not
reproduce well. Remember, the quality of the book cannot be better than
the originals provided. Do NOT use tape on your pages!

%--
\SubSection{Color}

The use of color on interior pages (that is, pages other
than the cover) is prohibitively expensive. We publish interior pages in
color only when it is specifically requested and budgeted for by the
conference organizers. DO NOT SUBMIT COLOR IMAGES IN YOUR
PAPERS UNLESS SPECIFICALLY INSTRUCTED TO DO SO.

%--
\SubSection{Symbols}

If your word processor or typewriter cannot produce Greek letters,
mathematical symbols, or other graphical elements, please use
pressure-sensitive (self-adhesive) rub-on symbols or letters (available
in most stationery stores, art stores, or graphics shops).

%--
\SubSection{Copyright forms}

You must include your signed IEEE copyright release form when you submit
your finished paper. We MUST have this form before your paper can be
published in the proceedings.

%--
\SubSection{Conclusions}

Please direct any questions to the production editor in charge of these

proceedings at the IEEE Computer Society Press: Phone (714) 821-8380, or
Fax (714) 761-1784.


```
%---------------------------------------------------------------------------
\nocite{ex1,ex2}
\bibliographystyle{latex8}
\bibliography{latex8}

\end{document}
```

==================== END FILE: latex8.tex =====================

=================== BEGIN FILE: latex8.bib ====================

```
%
%  $Description: Sample bibliography$
%
%  $Author: ienne $
%  $Date: 1995/09/15 15:19:53 $
%  $Revision: 1.3 $
%

@Article{ex1,
  author =   "Author, Ivan Marc",
  title =   "Some Related Article {I} Wrote",
  journal =   "Some Fine Journal",
  month = "January",
  number = "7",
  year =   "1999",
  volume =   "99",
  pages =   "1-100",
}


@Book{ex2,
  author =   "Expert, Andreas Nikolaos",
  title =   "A Book He Wrote",
  publisher =   "His Publisher",
  address = "Erewhon, NC",
  year =   "1999"
}
```

==================== END FILE: latex8.bib ======================

================== BEGIN FILE: latex8.bst ======================

```
% -----------------------------------------------------------------
%
% $Id: latex8.bst,v 1.1 1995/09/15 15:13:49 ienne Exp $
%
% by Paolo.Ienne@di.epfl.ch
%
% -----------------------------------------------------------------
%
% no guarantee is given that the format corresponds perfectly to
% IEEE 8.5" x 11" Proceedings, but most features should be ok.
%
% -----------------------------------------------------------------
%
% `latex8' from BibTeX standard bibliography style `abbrv'
% version 0.99a for BibTeX versions 0.99a or later, LaTeX version 2.09.
% Copyright (C) 1985, all rights reserved.
% Copying of this file is authorized only if either
% (1) you make absolutely no changes to your copy, including name, or
% (2) if you do make changes, you name it something other than
% btxbst.doc, plain.bst, unsrt.bst, alpha.bst, and abbrv.bst.
% This restriction helps ensure that all standard styles are identical.
% The file btxbst.doc has the documentation for this style.

ENTRY
  { address
    author
    booktitle
    chapter
    edition
    editor
    howpublished
    institution
    journal
    key
    month
    note
```

```
    number
    organization
    pages
    publisher
    school
    series
    title
    type
    volume
    year
  }
  {}
  { label }

INTEGERS { output.state before.all mid.sentence after.sentence after.block }

FUNCTION {init.state.consts}
{ #0 'before.all :=
  #1 'mid.sentence :=
  #2 'after.sentence :=
  #3 'after.block :=
}

STRINGS { s t }

FUNCTION {output.nonnull}
{ 's :=
  output.state mid.sentence =
    { ", " * write$ }
    { output.state after.block =
  { add.period$ write$
   newline$
   "\newblock " write$
  }
  { output.state before.all =
     'write$
     { add.period$ " " * write$ }
    if$
  }
      if$
      mid.sentence 'output.state :=
```

```
      }
    if$
    s
}

FUNCTION {output}
{ duplicate$ empty$
    'pop$
    'output.nonnull
  if$
}

FUNCTION {output.check}
{ 't :=
  duplicate$ empty$
    { pop$ "empty " t * " in " * cite$ * warning$ }
    'output.nonnull
  if$
}

FUNCTION {output.bibitem}
{ newline$
  "\bibitem{" write$
  cite$ write$
  "}" write$
  newline$
  ""
  before.all 'output.state :=
}

FUNCTION {fin.entry}
{ add.period$
  write$
  newline$
}

FUNCTION {new.block}
{ output.state before.all =
    'skip$
    { after.block 'output.state := }
  if$
```

```
        }

        FUNCTION {new.sentence}
        { output.state after.block =
            'skip$
            { output.state before.all =
         'skip$
         { after.sentence 'output.state := }
              if$
            }
          if$
        }

        FUNCTION {not}
        {   { #0 }
            { #1 }
          if$
        }

        FUNCTION {and}
        {   'skip$
            { pop$ #0 }
          if$
        }

        FUNCTION {or}
        {   { pop$ #1 }
            'skip$
          if$
        }

        FUNCTION {new.block.checka}
        { empty$
            'skip$
            'new.block
          if$
        }

        FUNCTION {new.block.checkb}
        { empty$
         swap$ empty$
```

```
    and
     'skip$
     'new.block
    if$
  }

  FUNCTION {new.sentence.checka}
  { empty$
     'skip$
     'new.sentence
    if$
  }

  FUNCTION {new.sentence.checkb}
  { empty$
    swap$ empty$
    and
     'skip$
     'new.sentence
    if$
  }

  FUNCTION {field.or.null}
  { duplicate$ empty$
     { pop$ "" }
     'skip$
    if$
  }

  FUNCTION {emphasize}
  { duplicate$ empty$
     { pop$ "" }
     { "{\em " swap$ * "}" * }
    if$
  }

  INTEGERS { nameptr namesleft numnames }

  FUNCTION {format.names}
  { 's :=
    #1 'nameptr :=
```

```
 s num.names$ 'numnames :=
 numnames 'namesleft :=
   { namesleft #0 > }
   { s nameptr "{f.~}{vv~}{ll}{, jj}" format.name$ 't :=
     nameptr #1 >
 { namesleft #1 >
    { ", " * t * }
    { numnames #2 >
  { "," * }
  'skip$
     if$
     t "others" =
  { " et~al." * }
  { " and " * t * }
     if$
    }
   if$
 }
 't
     if$
    nameptr #1 + 'nameptr :=
    namesleft #1 - 'namesleft :=
    }
  while$
 }

 FUNCTION {format.authors}
 { author empty$
    { "" }
    { author format.names }
  if$
 }

 FUNCTION {format.editors}
 { editor empty$
    { "" }
    { editor format.names
     editor num.names$ #1 >
  { ", editors" * }
  { ", editor" * }
     if$
```

```
    }
   if$
  }

FUNCTION {format.title}
{ title empty$
   { "" }
   { title "t" change.case$ }
 if$
}

FUNCTION {n.dashify}
{ 't :=
  ""
   { t empty$ not }
   { t #1 #1 substring$ "-" =
 { t #1 #2 substring$ "--" = not
   { "--" *
     t #2 global.max$ substring$ 't :=
   }
   {   { t #1 #1 substring$ "-" = }
 { "-" *
   t #2 global.max$ substring$ 't :=
 }
     while$
   }
   if$
 }
 { t #1 #1 substring$ *
   t #2 global.max$ substring$ 't :=
 }
     if$
   }
 while$
}

FUNCTION {format.date}
{ year empty$
   { month empty$
 { "" }
 { "there's a month but no year in " cite$ * warning$
```

```
      month
    }
      if$
    }
    { month empty$
 'year
 { month " " * year * }
    if$
    }
  if$
}

FUNCTION {format.btitle}
{ title emphasize
}

FUNCTION {tie.or.space.connect}
{ duplicate$ text.length$ #3 <
    { "~" }
    { " " }
  if$
  swap$ * *
}

FUNCTION {either.or.check}
{ empty$
    'pop$
    { "can't use both " swap$ * " fields in " * cite$ * warning$ }
  if$
}

FUNCTION {format.bvolume}
{ volume empty$
    { "" }
    { "volume" volume tie.or.space.connect
    series empty$
 'skip$
 { " of " * series emphasize * }
    if$
    "volume and number" number either.or.check
    }
```

```
       if$
      }

      FUNCTION {format.number.series}
      { volume empty$
          { number empty$
        { series field.or.null }
        { output.state mid.sentence =
            { "number" }
            { "Number" }
          if$
          number tie.or.space.connect
          series empty$
            { "there's a number but no series in " cite$ * warning$ }
            { " in " * series * }
          if$
        }
          if$
        }
        { "" }
       if$
      }

      FUNCTION {format.edition}
      { edition empty$
          { "" }
          { output.state mid.sentence =
        { edition "l" change.case$ " edition" * }
        { edition "t" change.case$ " edition" * }
          if$
        }
       if$
      }

      INTEGERS { multiresult }

      FUNCTION {multi.page.check}
      { 't :=
       #0 'multiresult :=
          { multiresult not
            t empty$ not
```

```
       and
     }
     { t #1 #1 substring$
       duplicate$ "-" =
       swap$ duplicate$ "," =
       swap$ "+" =
       or or
   { #1 'multiresult := }
   { t #2 global.max$ substring$ 't := }
       if$
     }
   while$
   multiresult
   }

   FUNCTION {format.pages}
   { pages empty$
     { "" }
     { pages multi.page.check
   { "pages" pages n.dashify tie.or.space.connect }
   { "page" pages tie.or.space.connect }
       if$
     }
   if$
   }

   FUNCTION {format.vol.num.pages}
   { volume field.or.null
    number empty$
     'skip$
     { "(" number * ")" * *
       volume empty$
   { "there's a number but no volume in " cite$ * warning$ }
   'skip$
       if$
     }
   if$
   pages empty$
     'skip$
     { duplicate$ empty$
   { pop$ format.pages }
```

```
    { ":" * pages n.dashify * }
      if$
    }
  if$
}

FUNCTION {format.chapter.pages}
{ chapter empty$
    'format.pages
    { type empty$
  { "chapter" }
  { type "l" change.case$ }
      if$
      chapter tie.or.space.connect
      pages empty$
  'skip$
  { ", " * format.pages * }
      if$
    }
  if$
}

FUNCTION {format.in.ed.booktitle}
{ booktitle empty$
    { "" }
    { editor empty$
  { "In " booktitle emphasize * }
  { "In " format.editors * ", " * booktitle emphasize * }
      if$
    }
  if$
}

FUNCTION {empty.misc.check}
{ author empty$ title empty$ howpublished empty$
  month empty$ year empty$ note empty$
  and and and and and
  key empty$ not and
    { "all relevant fields are empty in " cite$ * warning$ }
    'skip$
  if$
```

```
        }

        FUNCTION {format.thesis.type}
        { type empty$
            'skip$
            { pop$
              type "t" change.case$
            }
          if$
        }

        FUNCTION {format.tr.number}
        { type empty$
            { "Technical Report" }
            'type
          if$
          number empty$
            { "t" change.case$ }
            { number tie.or.space.connect }
          if$
        }

        FUNCTION {format.article.crossref}
        { key empty$
            { journal empty$
          { "need key or journal for " cite$ * " to crossref " * crossref *
            warning$
            ""
          }
          { "In {\em " journal * "\/}" * }
            if$
            }
            { "In " key * }
          if$
          " \cite{" * crossref * "}" *
        }

        FUNCTION {format.crossref.editor}
        { editor #1 "{vv~}{ll}" format.name$
          editor num.names$ duplicate$
          #2 >
```

```
   { pop$ " et~al." * }
   { #2 <
'skip$
{ editor #2 "{ff }{vv }{ll}{ jj}" format.name$ "others" =
   { " et~al." * }
   { " and " * editor #2 "{vv~}{ll}" format.name$ * }
 if$
}
   if$
 }
 if$
}

FUNCTION {format.book.crossref}
{ volume empty$
   { "empty volume in " cite$ * "'s crossref of " * crossref * warning$
    "In "
   }
   { "Volume" volume tie.or.space.connect
    " of " *
   }
 if$
 editor empty$
 editor field.or.null author field.or.null =
 or
   { key empty$
{ series empty$
   { "need editor, key, or series for " cite$ * " to crossref " *
    crossref * warning$
    "" *
   }
   { "{\em " * series * "\/}" * }
 if$
}
{ key * }
   if$
 }
   { format.crossref.editor * }
 if$
 " \cite{" * crossref * "}" *
}
```

```
FUNCTION {format.incoll.inproc.crossref}
{ editor empty$
  editor field.or.null author field.or.null =
  or
    { key empty$
  { booktitle empty$
    { "need editor, key, or booktitle for " cite$ * " to crossref " *
      crossref * warning$
      ""
    }
    { "In {\em " booktitle * "\/}" * }
  if$
  }
  { "In " key * }
    if$
  }
  { "In " format.crossref.editor * }
  if$
  " \cite{" * crossref * "}" *
}

FUNCTION {article}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  crossref missing$
  { journal emphasize "journal" output.check
    format.vol.num.pages output
    format.date "year" output.check
  }
  { format.article.crossref output.nonnull
    format.pages output
  }
  if$
  new.block
  note output
  fin.entry
}
```

```
FUNCTION {book}
{ output.bibitem
  author empty$
    { format.editors "author and editor" output.check }
    { format.authors output.nonnull
      crossref missing$
  { "author and editor" editor either.or.check }
  'skip$
      if$
    }
  if$
  new.block
  format.btitle "title" output.check
  crossref missing$
    { format.bvolume output
      new.block
      format.number.series output
      new.sentence
      publisher "publisher" output.check
      address output
    }
    { new.block
      format.book.crossref output.nonnull
    }
  if$
  format.edition output
  format.date "year" output.check
  new.block
  note output
  fin.entry
}

FUNCTION {booklet}
{ output.bibitem
  format.authors output
  new.block
  format.title "title" output.check
  howpublished address new.block.checkb
  howpublished output
  address output
```

```
    format.date output
    new.block
    note output
    fin.entry
  }

FUNCTION {inbook}
{ output.bibitem
  author empty$
    { format.editors "author and editor" output.check }
    { format.authors output.nonnull
      crossref missing$
  { "author and editor" editor either.or.check }
  'skip$
      if$
    }
  if$
  new.block
  format.btitle "title" output.check
  crossref missing$
    { format.bvolume output
      format.chapter.pages "chapter and pages" output.check
      new.block
      format.number.series output
      new.sentence
      publisher "publisher" output.check
      address output
    }
    { format.chapter.pages "chapter and pages" output.check
      new.block
      format.book.crossref output.nonnull
    }
  if$
  format.edition output
  format.date "year" output.check
  new.block
  note output
  fin.entry
}

FUNCTION {incollection}
```

```
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  crossref missing$
    { format.in.ed.booktitle "booktitle" output.check
      format.bvolume output
      format.number.series output
      format.chapter.pages output
      new.sentence
      publisher "publisher" output.check
      address output
      format.edition output
      format.date "year" output.check
    }
    { format.incoll.inproc.crossref output.nonnull
      format.chapter.pages output
    }
  if$
  new.block
  note output
  fin.entry
}

FUNCTION {inproceedings}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  crossref missing$
    { format.in.ed.booktitle "booktitle" output.check
      format.bvolume output
      format.number.series output
      format.pages output
      address empty$
  { organization publisher new.sentence.checkb
    organization output
    publisher output
    format.date "year" output.check
```

```
    }
    { address output.nonnull
      format.date "year" output.check
      new.sentence
      organization output
      publisher output
    }
        if$
      }
      { format.incoll.inproc.crossref output.nonnull
        format.pages output
      }
    if$
    new.block
    note output
    fin.entry
}

FUNCTION {conference} { inproceedings }

FUNCTION {manual}
{ output.bibitem
  author empty$
    { organization empty$
  'skip$
  { organization output.nonnull
    address output
  }
      if$
    }
    { format.authors output.nonnull }
  if$
  new.block
  format.btitle "title" output.check
  author empty$
    { organization empty$
  { address new.block.checka
    address output
  }
  'skip$
      if$
```

```
  }
  { organization address new.block.checkb
    organization output
    address output
  }
  if$
  format.edition output
  format.date output
  new.block
  note output
  fin.entry
}

FUNCTION {mastersthesis}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  "Master's thesis" format.thesis.type output.nonnull
  school "school" output.check
  address output
  format.date "year" output.check
  new.block
  note output
  fin.entry
}

FUNCTION {misc}
{ output.bibitem
  format.authors output
  title howpublished new.block.checkb
  format.title output
  howpublished new.block.checka
  howpublished output
  format.date output
  new.block
  note output
  fin.entry
  empty.misc.check
}
```

```
FUNCTION {phdthesis}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.btitle "title" output.check
  new.block
  "PhD thesis" format.thesis.type output.nonnull
  school "school" output.check
  address output
  format.date "year" output.check
  new.block
  note output
  fin.entry
}

FUNCTION {proceedings}
{ output.bibitem
  editor empty$
    { organization output }
    { format.editors output.nonnull }
  if$
  new.block
  format.btitle "title" output.check
  format.bvolume output
  format.number.series output
  address empty$
    { editor empty$
  { publisher new.sentence.checka }
  { organization publisher new.sentence.checkb
    organization output
  }
      if$
      publisher output
      format.date "year" output.check
    }
    { address output.nonnull
      format.date "year" output.check
      new.sentence
      editor empty$
  'skip$
```

```
  { organization output }
    if$
    publisher output
   }
  if$
  new.block
  note output
  fin.entry
}

FUNCTION {techreport}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  format.tr.number output.nonnull
  institution "institution" output.check
  address output
  format.date "year" output.check
  new.block
  note output
  fin.entry
}

FUNCTION {unpublished}
{ output.bibitem
  format.authors "author" output.check
  new.block
  format.title "title" output.check
  new.block
  note "note" output.check
  format.date output
  fin.entry
}

FUNCTION {default.type} { misc }

MACRO {jan} {"Jan."}

MACRO {feb} {"Feb."}
```

MACRO {mar} {"Mar."}

MACRO {apr} {"Apr."}

MACRO {may} {"May"}

MACRO {jun} {"June"}

MACRO {jul} {"July"}

MACRO {aug} {"Aug."}

MACRO {sep} {"Sept."}

MACRO {oct} {"Oct."}

MACRO {nov} {"Nov."}

MACRO {dec} {"Dec."}

MACRO {acmcs} {"ACM Comput. Surv."}

MACRO {acta} {"Acta Inf."}

MACRO {cacm} {"Commun. ACM"}

MACRO {ibmjrd} {"IBM J. Res. Dev."}

MACRO {ibmsj} {"IBM Syst.~J."}

MACRO {ieeese} {"IEEE Trans. Softw. Eng."}

MACRO {ieeetc} {"IEEE Trans. Comput."}

MACRO {ieeetcad}
 {"IEEE Trans. Comput.-Aided Design Integrated Circuits"}

MACRO {ipl} {"Inf. Process. Lett."}

MACRO {jacm} {"J.~ACM"}

MACRO {jcss} {"J.~Comput. Syst. Sci."}

MACRO {scp} {"Sci. Comput. Programming"}

MACRO {sicomp} {"SIAM J. Comput."}

MACRO {tocs} {"ACM Trans. Comput. Syst."}

MACRO {tods} {"ACM Trans. Database Syst."}

MACRO {tog} {"ACM Trans. Gr."}

MACRO {toms} {"ACM Trans. Math. Softw."}

MACRO {toois} {"ACM Trans. Office Inf. Syst."}

MACRO {toplas} {"ACM Trans. Prog. Lang. Syst."}

MACRO {tcs} {"Theoretical Comput. Sci."}

READ

FUNCTION {sortify}
{ purify$
  "l" change.case$
}

INTEGERS { len }

FUNCTION {chop.word}
{ 's :=
  'len :=
  s #1 len substring$ =
    { s len #1 + global.max$ substring$ }
    's
  if$
}

FUNCTION {sort.format.names}
{ 's :=

```
    #1 'nameptr :=
    ""
    s num.names$ 'numnames :=
    numnames 'namesleft :=
      { namesleft #0 > }
      { nameptr #1 >
  { "   " * }
 'skip$
        if$
      s nameptr "{vv{ } }{ll{ }}{  f{ }}{  jj{ }}" format.name$ 't :=
      nameptr numnames = t "others" = and
  { "et al" * }
  { t sortify * }
        if$
      nameptr #1 + 'nameptr :=
      namesleft #1 - 'namesleft :=
      }
    while$
  }

  FUNCTION {sort.format.title}
  { 't :=
    "A " #2
      "An " #3
        "The " #4 t chop.word
      chop.word
    chop.word
    sortify
    #1 global.max$ substring$
  }

  FUNCTION {author.sort}
  { author empty$
      { key empty$
    { "to sort, need author or key in " cite$ * warning$
      ""
      }
    { key sortify }
        if$
      }
      { author sort.format.names }
```

```
       if$
       }

       FUNCTION {author.editor.sort}
       { author empty$
           { editor empty$
        { key empty$
           { "to sort, need author, editor, or key in " cite$ * warning$
             ""
           }
           { key sortify }
         if$
        }
        { editor sort.format.names }
           if$
         }
           { author sort.format.names }
         if$
       }

       FUNCTION {author.organization.sort}
       { author empty$
           { organization empty$
        { key empty$
           { "to sort, need author, organization, or key in " cite$ * warning$
             ""
           }
           { key sortify }
         if$
        }
        { "The " #4 organization chop.word sortify }
           if$
         }
           { author sort.format.names }
         if$
       }

       FUNCTION {editor.organization.sort}
       { editor empty$
           { organization empty$
        { key empty$
```

```
      { "to sort, need editor, organization, or key in " cite$ * warning$
        ""
      }
      { key sortify }
    if$
  }
  { "The " #4 organization chop.word sortify }
    if$
  }
    { editor sort.format.names }
  if$
}

FUNCTION {presort}
{ type$ "book" =
 type$ "inbook" =
 or
   'author.editor.sort
   { type$ "proceedings" =
 'editor.organization.sort
 { type$ "manual" =
    'author.organization.sort
    'author.sort
  if$
 }
    if$
  }
  if$
  "    "
  *
  year field.or.null sortify
  *
  "    "
  *
  title field.or.null
  sort.format.title
  *
  #1 entry.max$ substring$
  'sort.key$ :=
}
```

```
ITERATE {presort}

SORT

STRINGS { longest.label }

INTEGERS { number.label longest.label.width }

FUNCTION {initialize.longest.label}
{ "" 'longest.label :=
 #1 'number.label :=
 #0 'longest.label.width :=
}

FUNCTION {longest.label.pass}
{ number.label int.to.str$ 'label :=
 number.label #1 + 'number.label :=
 label width$ longest.label.width >
   { label 'longest.label :=
     label width$ 'longest.label.width :=
   }
   'skip$
 if$
}

EXECUTE {initialize.longest.label}

ITERATE {longest.label.pass}

FUNCTION {begin.bib}
{ preamble$ empty$
   'skip$
   { preamble$ write$ newline$ }
 if$
 "\begin{thebibliography}{" longest.label *
 "}\setlength{\itemsep}{-1ex}\small" * write$ newline$
}

EXECUTE {begin.bib}

EXECUTE {init.state.consts}
```

```
ITERATE {call.type$}

FUNCTION {end.bib}
{ newline$
 "\end{thebibliography}" write$ newline$
}

EXECUTE {end.bib}

% end of file latex8.bst
% ------------------------------------------------------------------


==================== END FILE: latex8.bst =====================

========= file:  LATEX8PS.TXT ========================

%!PS-Adobe-2.0
%%Creator: dvips 5.47 Copyright 1986-91 Radical Eye Software
%%Title: latex8.dvi
%%Pages: 2 1
%%BoundingBox: 0 0 612 792
%%DocumentFonts: Times-Roman Times-Bold Times-Italic Helvetica-Bold
%%EndComments
%%BeginProcSet: /usr/local/lib/tex/ps/psfig.pro
/TeXscale { 65536 div } def

/DocumentInitState [ matrix currentmatrix currentlinewidth currentlinecap
currentlinejoin currentdash currentgray currentmiterlimit ] cvx def

/startTexFig {
 /SavedState save def
 userdict maxlength dict begin
 currentpoint transform

 DocumentInitState setmiterlimit setgray setdash setlinejoin setlinecap
  setlinewidth setmatrix

 itransform moveto
```

```
/ury exch TeXscale def
/urx exch TeXscale def
/lly exch TeXscale def
/llx exch TeXscale def
/y exch TeXscale def
/x exch TeXscale def

currentpoint /cy exch def /cx exch def

/sx x urx llx sub div def  % scaling for x
/sy y ury lly sub div def % scaling for y

sx sy scale   % scale by (sx,sy)

cx sx div llx sub
cy sy div ury sub translate

/DefFigCTM matrix currentmatrix def

/initmatrix {
 DefFigCTM setmatrix
 } def
/defaultmatrix {
 DefFigCTM exch copy
 } def

/initgraphics {
 DocumentInitState setmiterlimit setgray setdash
  setlinejoin setlinecap setlinewidth setmatrix
 DefFigCTM setmatrix
 } def

/showpage {
 initgraphics
 } def
 /erasepage {
  initgraphics
  } def
 /copypage { } def

} def
```

```postscript
/clipFig {
 currentpoint 6 2 roll
 newpath 4 copy
 4 2 roll moveto
 6 -1 roll exch lineto
 exch lineto
 exch lineto
 closepath clip
 newpath
 moveto
 } def
/doclip { llx lly urx ury clipFig } def
/endTexFig {
 end SavedState restore
 } def
%%EndProcSet
%%BeginProcSet: tex.pro
/TeXDict 200 dict def TeXDict begin /N /def load def /B{bind def}N /S /exch
load def /X{S N}B /TR /translate load N /isls false N /vsize 10 N /@rigin{
isls{[0 1 -1 0 0 0]concat}if 72 Resolution div 72 VResolution div neg scale
Resolution VResolution vsize neg mul TR matrix currentmatrix dup dup 4 get
round 4 exch put dup dup 5 get round 5 exch put setmatrix}N /@letter{/vsize 10
N}B /@landscape{isls true N /vsize -1 N}B /@a4{/vsize 10.6929133858 N}B /@a3{
/vsize 15.5531 N}B /@ledger{/vsize 16 N}B /@legal{/vsize 13 N}B /@manualfeed{
statusdict /manualfeed true put}B /@copies{/#copies X}B /FMat[1 0 0 -1 0 0]N
/FBB[0 0 0 0]N /nn 0 N /IE 0 N /ctr 0 N /df-tail{/nn 8 dict N nn begin
/FontType 3 N /FontMatrix fntrx N /FontBBox FBB N string /base X array
/BitMaps X /BuildChar{CharBuilder}N /Encoding IE N end dup{/foo setfont}2
array copy cvx N load 0 nn put /ctr 0 N[]B /df{/sf 1 N /fntrx FMat N df-tail}
B /dfs{div /sf X /fntrx[sf 0 0 sf neg 0 0]N df-tail}B /E{pop nn dup definefont
setfont}B /ch-width{ch-data dup length 5 sub get}B /ch-height{ch-data dup
length 4 sub get}B /ch-xoff{128 ch-data dup length 3 sub get sub}B /ch-yoff{
ch-data dup length 2 sub get 127 sub}B /ch-dx{ch-data dup length 1 sub get}B
/ch-image{ch-data dup type /stringtype ne{ctr get /ctr ctr 1 add N}if}B /id 0
N /rw 0 N /rc 0 N /gp 0 N /cp 0 N /G 0 N /sf 0 N /CharBuilder{save 3 1 roll S
dup /base get 2 index get S /BitMaps get S get /ch-data X pop /ctr 0 N ch-dx 0
ch-xoff ch-yoff ch-height sub ch-xoff ch-width add ch-yoff setcachedevice
ch-width ch-height true[1 0 0 -1 -.1 ch-xoff sub ch-yoff .1 add]{ch-image}
imagemask restore}B /D{/cc X dup type /stringtype ne{[]}if nn /base get cc ctr
put nn /BitMaps get S ctr S sf 1 ne{dup dup length 1 sub dup 2 index S get sf
div put}if put /ctr ctr 1 add N}B /I{cc 1 add D}B /bop{userdict /bop-hook
```

known{bop-hook}if /SI save N @rigin 0 0 moveto}N /eop{clear SI restore
showpage userdict /eop-hook known{eop-hook}if}N /@start{userdict /start-hook
known{start-hook}if /VResolution X /Resolution X 1000 div /DVImag X /IE 256
array N 0 1 255{IE S 1 string dup 0 3 index put cvn put}for}N /p /show load N
/RMat[1 0 0 -1 0 0]N /BDot 260 string N /rulex 0 N /ruley 0 N /v{/ruley X
/rulex X V}B /V statusdict begin /product where{pop product dup length 7 ge{0
7 getinterval(Display)eq}{pop false}ifelse}{false}ifelse end{{gsave TR -.1 -.1
TR 1 1 scale rulex ruley false RMat{BDot}imagemask grestore}}{{gsave TR -.1
-.1 TR rulex ruley scale 1 1 false RMat{BDot}imagemask grestore}}ifelse B /a{
moveto}B /delta 0 N /tail{dup /delta X 0 rmoveto}B /M{S p delta add tail}B /b{
S p tail}B /c{-4 M}B /d{-3 M}B /e{-2 M}B /f{-1 M}B /g{0 M}B /h{1 M}B /i{2 M}B
/j{3 M}B /k{4 M}B /w{0 rmoveto}B /l{p -4 w}B /m{p -3 w}B /n{p -2 w}B /o{p -1 w
}B /q{p 1 w}B /r{p 2 w}B /s{p 3 w}B /t{p 4 w}B /x{0 S rmoveto}B /y{3 2 roll p
a}B /bos{/SS save N}B /eos{clear SS restore}B end
%%EndProcSet
%%BeginProcSet: texps.pro
TeXDict begin /rf{655360 div mul Resolution mul 7227 div /PixPerEm X findfont
dup length 1 add dict /nn X{1 index /FID ne{nn 3 1 roll put}{pop pop}ifelse}
forall 256 dict begin nn /Encoding get 0 1 255{2 copy get 3 index 2 index get
1000 mul PixPerEm div def pop}for pop pop nn /Metrics currentdict put end
/fontname X /nn dup nn definefont[PixPerEm 0 0 PixPerEm neg 0 0]makefont N
fontname{/foo setfont}2 array copy cvx N fontname load 0 nn put}N
/ObliqueSlant{dup sin S cos div neg}B /SlantFont{/foo X[1 0 foo 1 0 0]
TransFont}N /ExtendFont{/foo X 3 2 roll[S{foo div}forall]3 1 roll[foo 0 0 1 0
0]TransFont}N /TransFont{S findfont S makefont dup length dict /nn X{1 index
/FID ne{nn 3 1 roll put}{pop pop}ifelse}forall dup nn definefont pop}N end
%%EndProcSet
TeXDict begin 1000 300 300 @start /Fa [0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 9 12 16 19 19 31
29 12 12 12 19 25 9 12 9 10 19 19 19 19 19 19 19 19 19 19 12
12 25 25 25 19 34 23 23 25 27 23 23 27 27 12 17 25 21 31 25
27 23 27 23 19 21 27 23 31 23 21 21 15 10 15 16 19 12 19 19
17 19 17 10 19 19 10 10 17 10 27 19 19 19 19 15 15 10 19 17
25 17 17 15 15 10 15 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15 19 19 6 19 19 19 19 8 21
19 12 12 19 19 0 19 19 19 9 0 20 13 12 21 21 19 33 37 0 19
0 12 12 12 12 12 12 12 12 0 12 12 0 12 12 12 33 0 0 0 0 0
0 0 0 0 0 0 0 33 0 10 0 0 0 21 27 35 12 0 0 0 0 25
0 0 0 10 0 0 10 19 25 19 0 0 0 0] /Times-Italic 1000 589824
rf /Fb [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 9 12 15 19 19 31 29 12 12 12 19 21 9 12 9 10

19 19 19 19 19 19 19 19 19 19 10 10 21 21 21 17 34 27 25 25
27 23 21 27 27 12 15 27 23 33 27 27 21 27 25 21 23 27 27 35
27 27 23 12 10 12 18 19 12 17 19 17 19 17 12 19 19 10 10 19
10 29 19 19 19 19 12 15 10 19 19 27 19 19 17 18 7 18 20 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 12 19 19 6 19 19 19 19 7 17 19 12 12 21 21 0 19 19 19 9
0 17 13 12 17 17 19 37 37 0 17 0 12 12 12 12 12 12 12 12 0
12 12 0 12 12 12 37 0 0 0 0 0 0 0 0 0 0 0 0 0 0 33 0 10
0 0 0 0 23 27 33 12 0 0 0 0 0 25 0 0 0 10 0 0 10 19 27 19 0
0 0 0] /Times-Roman 1000 589824 rf /Fc [0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 11 14 17 17
28 26 11 11 11 17 19 8 11 8 9 17 17 17 17 17 17 17 17 17 17
9 9 19 19 19 15 31 24 22 22 24 20 18 24 24 11 13 24 20 30 24
24 18 24 22 18 20 24 24 31 24 24 20 11 9 11 16 17 11 15 17
15 17 15 11 17 17 9 9 17 9 26 17 17 17 17 11 13 9 17 17 24
17 17 15 16 7 16 18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 11 17 17 6 17 17 17 17 6 15 17
11 11 18 18 0 17 17 17 8 0 15 12 11 15 15 17 33 33 0 15 0 11
11 11 11 11 11 11 11 0 11 11 0 11 11 11 33 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 30 0 9 0 0 0 0 20 24 30 10 0 0 0 0 0 22 0 0
0 9 0 0 9 17 24 17 0 0 0 0] /Times-Roman 1000 524288 rf /Fd
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 6 8 10 12 12 21 19 8 8 8 12 14 6 8 6 7 12 12 12 12 12
12 12 12 12 12 7 7 14 14 14 11 23 18 17 17 18 15 14 18 18 8
10 18 15 22 18 18 14 18 17 14 15 18 18 24 18 18 15 8 7 8 12
12 8 11 12 11 12 11 8 12 12 7 7 12 7 19 12 12 12 12 8 10 7
12 12 18 12 12 11 12 5 12 13 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 8 12 12 4 12 12 12 12
4 11 12 8 8 14 14 0 12 12 12 6 0 11 9 8 11 11 12 25 25 0 11
0 8 8 8 8 8 8 8 8 0 8 8 0 8 8 25 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 22 0 7 0 0 0 0 15 18 22 8 0 0 0 0 0 17 0 0 0 7 0 0
7 12 18 12 0 0 0 0] /Times-Roman 1000 393216 rf /Fe [0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7 10 12 15 15 24 23 10 10 10 15 16 7 10 7 8 15 15 15 15 15
15 15 15 15 15 8 8 16 16 16 13 27 21 19 19 21 18 16 21 21 10
11 21 18 26 21 21 16 21 19 16 18 21 21 27 21 21 18 10 8 10
14 15 10 13 15 13 15 13 10 15 15 8 8 15 8 23 15 15 15 15 10
11 8 15 15 21 15 15 13 14 6 14 16 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 15 15 5 15 15
15 15 5 13 15 10 10 16 16 0 15 15 15 7 0 13 10 10 13 13 15
29 29 0 13 0 10 10 10 10 10 10 10 10 0 10 10 0 10 10 10 29

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 26 0 8 0 0 0 0 18 21 26 9 0
0 0 0 0 19 0 0 0 8 0 0 8 15 21 15 0 0 0 0] /Times-Roman 1000
458752 rf /Ff [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 12 14 20 23 23 37 30 12 14 14 16 24 12
14 12 12 23 23 23 23 23 23 23 23 23 23 14 14 24 24 24 25 40
30 30 30 30 28 25 32 30 12 23 30 25 35 30 32 28 32 30 28 25
30 28 39 28 28 25 14 12 14 24 23 12 23 25 23 25 23 14 25 25
12 12 23 12 37 25 25 25 25 16 23 14 25 23 32 23 23 21 16 12
16 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 14 23 23 7 23 23 23 23 10 21 23 14 14 25 25 0
23 23 23 12 0 23 15 12 21 21 23 42 42 0 25 0 14 14 14 14 14
14 14 14 0 14 14 0 14 14 14 42 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 42 0 15 0 0 0 25 32 42 15 0 0 0 0 0 37 0 0 0 12 0 0 12
25 39 25 0 0 0 0] /Helvetica-Bold 1000 655360 rf /Fg 1 3 df<400020C000606000
C03001801803000C0600060C0003180001B00000E00000E00001B000031800060C000C06001803
003001806000C0C0006040002013147A9320>2 D E /Fh 1 59 df<60F0F06004047C830C>58
D E /Fi [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 11 15 25 23 23 46 38 15 15 15 23 26 11 15 11
13 23 23 23 23 23 23 23 23 23 23 15 15 26 26 26 23 42 33 30
33 33 30 28 36 36 18 23 36 30 43 33 36 28 36 33 25 30 33 33
46 33 33 30 15 13 15 27 23 15 23 25 20 25 20 15 23 25 13 15
25 13 38 25 23 25 25 20 18 15 25 23 33 23 23 20 18 10 18 24
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 15 23 23 8 23 23 23 23 13 23 23 15 15 25 25 0 23 23
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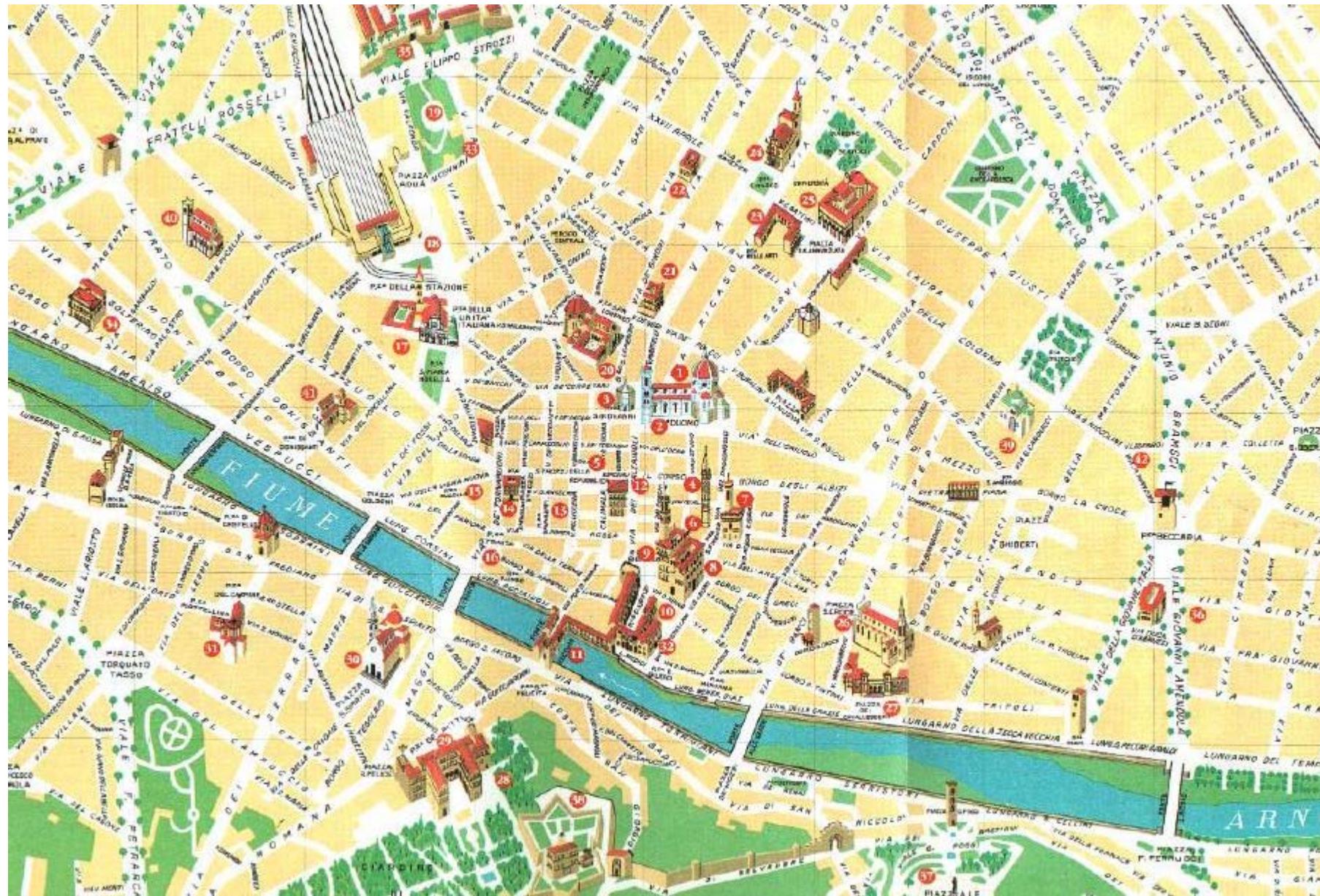
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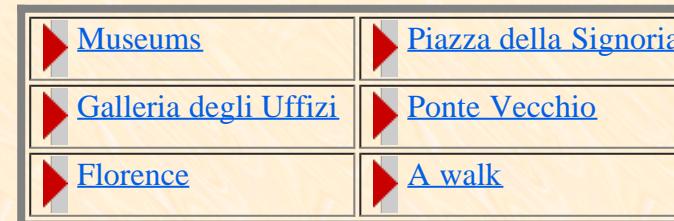
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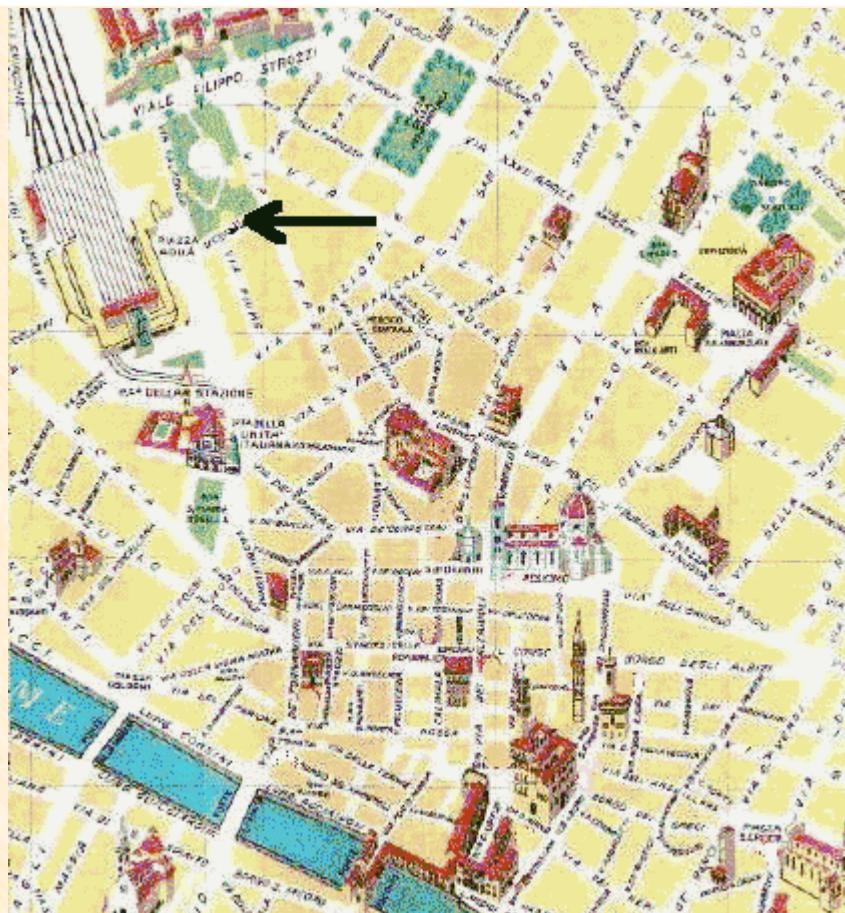
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Brazil	Via dei Serragli, 220/r	Tel. 222336
Cape Green Islands	Via Tornabuoni, 4	Tel. 216689
China	Via Fontana, 34	Tel. 357642
Chile	Via dei Servi, 13	Tel. 212732
Costa Rica	Via Giambologna, 10	Tel. 573603
Denmark	Via dei Servi, 13	Tel. 211007
Dominican Rep.	Via Milano, 23	Tel. 0574/607518
Finland	Via Strozzi, 6	Tel. 293228
France	P.za Ognissanti, 2	Tel. 2302556
Germany (Fed. Rep. of)	Lungarno Vespucci, 30	Tel. 294722
Great Britain	Lungarno Corsini, 2	Tel. 284133
Greece	Via delle Oche, 2	Tel. 2381482
Haiti	Via Cerretani, 2	Tel. 282683
Honduras	Via dei Bardi, 30	Tel. 2342519
Hungary	Via Belgio, 2	Tel. 6531817
Ivory Coast	Via S. Spirito, 9/r	Tel. 294837
Lettony	Via Suor M. Celeste, 1	Tel. 224597
Luxembourg	Via Bartolommei, 4	Tel. 473219
Malta	Via dei Servi, 13	Tel. 217875
Mexico	Via Arte della Lana,	Tel. 217831
Monaco (Princ. of)	Via Cherubini, 18	Tel. 587897
Norway	Via G. Capponi, 81	Tel. 2479321

Panama	Via Mayer, 2	Tel. 473904
Paraguay	Via dell'Erta Canina, 66	Tel. 2345020
Peru	Via della Robbia, 38	Tel. 2343445
Romania	Borgo Pinti, 20	Tel. 240601
S. Marino (Republic of)	Via Roma, 3	Tel. 210864
Senegal	Borgo S. Lorenzo, 1	Tel. 289968
South Africa	P.za Saltarelli, 1	Tel. 281863
Spain	Via G. La Pira, 21	Tel. 217110
Sweden	Via B. Lupi, 14	Tel. 499536
Switzerland	P.le Galileo	Tel. 222434
The Nederlands	Via Cavour, 81	Tel. 475249
Turkey	Via Nazionale, 7	Tel. 294893
United States of America	L.no Vespucci, 38	Tel. 2398276
Venezuela	Via Giambologna, 10	Tel. 573603

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Florence: Useful Information

Telephone Prefixes
Italy +39
Florence district (0)55

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Piazza Stazione
Tel: +39 (0)55 212245
Chiasso Baroncelli 17/r
Tel: +39 (0)55 2302124
Via Cavour 1/r
Tel: +39 (0)55 2760381

Florence Town Hall
Tel: +39 (0)55 2768366
Chamber of Commerce
Piazza dei Giudici 3, 50122 Firenze (FI)
Tel: +39 (0)55 2795301 Fax: 2795259

Public Holidays
1 January (Maria Madre di Dio), 6 January (Epifania), Easter Monday, 25 April (Liberation day), 1° May (Workers days), 15 August (Assunzione di Maria Vergine), 1° November (All Saints day), 8 Dicember (Immaculate Conception), 25 Dicember (Christmas Day), 26 Dicember (Saint Stefano).

Main Post Offices
Via Pietrapiana 53/55, 50100 Firenze (FI)
Informations - Tel: +39 (0)55 214600
Via Pellicceria 3, 50100 Firenze (FI)
Informations - Tel: +39 (0)55 211147
Via Alamanni 1, 50100 Firenze (FI)
Informations - Tel: +39 (0)55 215045

Lost and Found
For information contact:
The Town Hall

Lost Property Office, Via Circondaria 19
Tel: +39 (0)55 367943

Emergency Numbers
Public Emergencies and Assistance - Tel: 113
Military Police (Carabinieri) - Tel: 112
Fire Brigade - Tel: 115
Ambulance and Emergency Medical Assistance - Tel: 118
Municipal Police (Station) - Tel: +39 (0)55 212290
Municipal Police (Emergency Calls) - Tel: +39 (0)55 36911
**Police Headquarter and Stolen Car Service - Tel: +39 (0)55 49771**
A.C.I - (Automobile Club Firenze) - Tel: +39 (0)55 61801 Fax: 611231
Roadside Assistance - Tel: 116
Highway Police - Tel: +39 (0)55 577777

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Distributed Systems and Internet Technologies Lab
Distributed Data Intelligence and Technologies Lab
Department of Information Engineering (DINFO)
University of Florence

http://www.disit.dinfo.unifi.it

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PAOLO NESI'S HOME PAGE

Paolo Nesi is full professor at the University of Florence, working at DINFO, Department of Information Engineering (Computer Science Department, dipartimento di ingegneria dell'informazione) as: Chair of DISIT Lab, of the University of Florence **(this portal)**. Since 2011, he is also a member of the scientific committee of CSAVRI of the University of Florence, and referent of the APRE Toscana for the University of Florence. He founded and is at present responsible of the DISIT research group and LAB. The work he has carried out in such different fields has been appreciated in different ways. P. Nesi is a member of IEEE , ACM, AIIA, ICPR.

DOWNLOAD a more detailed: CV di Paolo Nesi in Italiano, CV of Paolo Nesi in English.

Paolo Nesi's Publications

Relevant conferences in which he is involved: ICSOFT2014, . , ICECCS2014. , DMS2014. , MobiWIS2014. , ICSOFT2014.,

For thesis and work at DISIT Lab follow this link.

Research areas are: data mining and understanding, semantic computing, natural language processing, artificial intelligence, big data, data analytics, knowledge mining, knowledge representation, semantic models, formal models, linked open data, content protection. **Algorithms and solutions for:** recognition, disambiguation, user behaviour analysis, collective analysis, recommendation, multilingual and cross media indexing, path generation, user profiling, indoor/outdoor navigation, media synchronisation, knowledge matchmaking, audio transcoding, decision support, sentient and autonomous agents and tools, ontology production, etc. (see more on **Publications** and **Current Projects** page, see on the left bar of this page for the Conferences in which DISIT is directly involved).
Some Flyers as PDF (for links to the projects web pages see on the left):

- DISIT lab overview/flyer: **DISIT**
- recent frameworks and tools for semantic computing: **DiCCoF**, **MyStoryPlayer**, **SocialGraph**, **AXMEDIS AXCP**
- running projects in Smart City area: **Sii-Mobility(ENG)**, **Coll@bora(ENG)**, **Sii-Mobility(ITA)**, **Coll@bora(ITA)**
- running projects on transporation: **TRACE-IT**, **RAISSS**, TESYSRAIL
- running projects on Smart Cloud: **ICARO**

CONTENT

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▶ Gruppi

- main mobile applications: **Content Organizer**, **Mobile Emergency(ITA)**, **MobileEmergency(ENG)**
- spin off web site: **Effective Knowledge**
- from Effective Knowledge: **e-Brain(ITA)**, **e-Brain(ENG)**, **OSIM(ITA)**, **OSIM(ENG)**.
- running platforms: **ECLAP**, **AXMEDIS**, **OSIM**, **APREToscana**, **SMNet.org**, **IUF.CSAVRI.ORG**, **Mobile Medicine**, **etc.**
- see more on **Tools Page**, and **Current Projects** page.

For didaptical aspects see on list of courses: distributed systems, collaborative and protection systems, DRM, p2p, semantic and media grid, cloud computing and virtualization, mobile systems, software engineering and project planning/management, Fondamenti di Informatica, computer science.

Reference activities in the areas of:

- **Smart Cities**: in this area DISIT Lab is working on two new projects cofounded by the italian Ministry on Education, Univeristy and Research, MIUR. In the the two projects DISIT lab is the Scientific and Technical Coordinator with Paolo Nesi, and it is providing competence on knowledge modeling, data intelligence, bigdata, social media, cloud computing, inference tools, mobile tools, etc.
  - **Sii-Mobility (general scientific Coordinator)**: **objectives** are the: (i) reduction of social costs of mobility, (ii) simplify the use of mobility systems, (iii) developing working solutions and application, with testing methods, (iv) contribute to standardisation organs, and establishing relationships with other smart cities' management systems. The Sii-Mobility platform will be capable to provide support for SME and Public Administrations. **Sii-Mobility PDF overview**
  - **Coll@bora (general scientific coordinator)**: **aims** to solve problems of management and protection of information needed to build effective and protected collaborations in the teams following the disabled.**Coll@bora PDF overview**
- **knowledge mining and semantic understanding** and indexing via natural language processing in Italian, English, German, France; automated ontology production, semantic queries providing results with relevance and semantic similarity, matchmaking, knowledge mining and discovering. Projects as: **OSIM (general scientific Coordinator)**, **SACVAR** (scientific coordinator), and also OSIM for blog monitoring for Pharmaco-vigiliance.
- **social media, social semantic tools**, for social network, social media, semantic computing, cross media recommendations, cross media indexing, data mining, knowledge modelling, in projects as **ECLAP (general scientific coordinator)**, mobile medicine (sci coord), APREtoscana, etc.
  - Cross media learning management system, Social learning tool
  - ECLAP: best practice network, social network for cross media content
  - **IUF.CSAVRI.org**: enterprise Incubator of university of Florence, collaborative and educational tools for the incubator
  - **www.APRETOSCANA.org**: collaborative portal for the promotion of European Research in Tuscany, stimulation and valorisation of Tuscany Reasearch in the world.
  - **Mobile Medicine Social Network**: A multichannel best practice network for medical personnel
- **Train Control Systems** for high speed trains and metro and thus formal methods, logic programming, formal verification autonomous agents and operators, standards as ETCS, ERTMS, etc. With projects as: **TRACE-IT**, **RAISSS**, **TESYSRAIL** (referent for the department DINFO)
- **Smart Cloud computing,** cloud automation, optimization and intelligence, monitoring and reasoning about cloud behaviour, verification of configuration consistencies, identification and prediction of critical cases, etc. See projects such as: **ICARO** (general scientific coordinator)
- **parallel and distributed processing of automated semantic computing** and production, framework and tools to setup called AXCP tool, developed as a starting point in **AXMEDIS** (general scientific coordinator), IEEE Multimedia of April 2012, and furtherly developed in many other projects and years of work.
  - **AXCP flyer and technical note**
  - **AXCP tools, technical note, Semantic computing, media grid, big data**
  - Micro grids for scalable media computing and intelligence on distributed scenarios, IEEE Multimedia,

CLASSIFICATION

List of Terms

- *application fields (2301)*
- *content kind (495)*
- *models and systems (1658)*
- *project kind (329)*
- *research topics (5193)*
- *standard (60)*

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2012
  - clusters based on AXCP, hadoop, nutch, etc.
- **DiCCoF (general scientific coordinator)**: Cognitive Computing Framework based on Massive and parallel support on which one can script processes and their relationships/flows that put in execution algorithms and tools exploiting tools and DiCCoF services (crawling, ingesting, in LOD, indexing, mining, adapting, recognition, etc.), with plugins and tools of third parties.
  - **DiCCoF description in PDF**
- **Semantic and sentient computing** tools (**DiCCoF PDF Overview)** (general scientific coordinator) as:
  - **CoSKOSAM:** Collaborative tool for SKOS and ontology management, automated production of ontologies (see http://openmind.disit.org), Natural Language processing languages: English, Italian, German, Spanish, Francoise. OSIM project
  - **Semantic Query tool and wizard** on the basis of OSIM RDF database queried by SPARQL (see http://openmind.disit.org),
  - **MyStoryPlayer:** semantic model and tool for non linear media annotations, synchronization and relationships (see http://www.eclap.eu/super/msp/) also promoted by Europeana. **Download the MyStoryPlayer Flyer.**
  - **Linked Open Graph** provides algorithms and tools to solve the problem dynamically showing the relationships and resolving connections. The Users can play with graph elements moving and zooming, turning on/off connections, filtering and expanding, exploring and playing to see more information, exploiting connection with LOD, etc.
  - **Social Graph** connecting and relating people, content, actions, etc., navigating among them, exploiting Open data and Linked Open Data, exploiting name resolution via dbPedia, geoname resolution, etc (see http://www.eclap.eu/super/sg/) also promoted by Europeana. **Download the Social Graph flyer**
  - **Time Line Navigator** tool for identifying, mining and disambiguating dates contained in textual documents, navigation in temporal line (see http://www.eclap.eu/177596)
  - **Name Extractor, Resolver and Manager** to cope with names recognition and identification, synonymous management, creating links with dbpedia, geonames, vip names, user names, etc. also in Social Graph (see http://www.eclap.eu/177605),
  - **XMediaCBIR** Content Based Information Retrieval for producing search and recommendation algorithms integrating both textual and content descriptors for similarities and retrieval algorithms
  - **MatchMaking** to support the match from offers and demands (see http://www.apretoscana.org/5221)
  - **Content Organizer** mobile application for semantic organization of content on your iPhone, iPad in connection with enabled social media and portal solutions with augmented reality, gps, QR, retrieval, indexing, ebook, cross media, also available on iPhone, Android, Windows Phone (see http://www.eclap.eu/94220) **Download the Content Organizer Flyer**
  - **Mobile Emergency:** indoor and outdoor navigation tools and emergency management, automated intervention management, see Apple Store. Download the Mobile Emergency Flyer
  - **IPR Wizard assistive tools for IPR licensing** and permission setting according to rights ontologies and relationships
  - **Multimedia Crawler to search and mining media conten**t from social media portals as VIMEO and aggregators connected to Europeana, a tool for the creative industry, for teachers, and cultural institutions.
  - **AXCP: scalable media grid**, development tool kit for parallel and distributed semantic computing (see http://www.axmedis.org) **AXCP flyer and technical note**
  - Georesolution and navigation: geo location, geo distribution, etc.
  - Social media integration with OpenAuth, embedding, citations, etc.

- **Fondazione ICON.** A non-profit organization committed to bridge brain studies towards a new computational paradigm: the connectome-inspired computing. This is CON, the International Center of Computational Neurophotonics, founded in July 2011 with the support of LENS (European Laboratory for Non-linear Spectroscopy), the University of Florence and the IBM Foundation.
- Joined lab industry-university **INEA LAB, "Laboratorio per l'Ingegneria Elettroacustica".**
- **International and national projects.** scientific responsible of international research projects such as:

IMAESTRO, MUPAAC, WEDELMUSIC, MUSICNETWORK, ICCOC, MOODS, IMEASY, VISICON, VARIAZIONI, OFCOMP, OPTAMS, AXMEDIS and so forth. For further reference on each and every project. He has played the role of Project Coordinator for MOODS, MUSICNETWORK, WEDELMUSIC and AXMEDIS.

- **standardisation** group in the MPEG ISO (International Standard Organization), for the MPEG SMR, for MPEG M3W (middleware for software component distribution), MPEG-21 (distribution and DRM models, protection models). Many of DISIT contributions have been taken into account and are integrated part of world-wide standards, like MPEG ISO. DISIT people have been editor in standards such as MPEG-4 SMR and MPEG M3W.

Other activities

- **Conference co-chair of DMS 2014**, Pittsburg University Center, USA, by KSI, August 27-29.
- programme Co chair of DMS 2013, Brighton UK, organized by Knowledge Institute.
- **EffectiveKnowledge**: Spin-off partecipato dell'Universita' degli Studi di Firenze

- DISIT lab and   4 different Innovations of DISIT Lab have been selected by the Italian Ministery Agency for the diffusion of Innovation Tecnologiesin the competition Italy of Innovators:

  - **Cross Media Learning Management System at MIUR**..INNOVAZIONE SELEZIONATA DA ITALIA DEGLI INNOVATORI.to get more, it is currently in use on: ECLAP portal and EC CIP PsP project

     ECLAP Best Practice Network and e-learning support in connection with Europeana. Idraulica.fupress.com, a portal for e-learning and distance learning in Idraulic Engineering; Mobile Medicine, see below, a portal for medical distance learning and social networking. MyStooryPlayer semantic audiovisual annotation tool.

    - Flyer of XLMS in PDF

  - **Mobile Medicine on MIUR**.INNOVAZIONE SELEZIONATA DA ITALIA DEGLI INNOVATORI..to get

    more please see **Mobile Medicine Social Network and iPad/iPhone and windows PDA tools**
  - **Mobile Emergency at MIUR -..INNOVAZIONE SELEZIONATA DA ITALIA DEGLI INNOVATORI...** to get more on **Mobile Emergency**, an Apple App for iPhone. A tool to manage emergency in the hospital area. Developed in collaboration with the Maxi Emergency group on Mobile Medicine. The solution also implies the connection with a server to manage the emergencies and the help the people involved in getting the exit and the collecting centers according to model of interventions.
  - **Content Processing Media Grid, AXCP on MIUR**.INNOVAZIONE SELEZIONATA DA ITALIA DEGLI INNOVATORI.. to get more it is the core technology for semantic computing and media grid the so called AXCP Media Grid computing tools. It is going to appear on IEEE Multimedia in the 2011 and it

    has been developed starting from one of the results of AXMEDIS project   .

    - Technical Note in AXCP, download the PDF

  since 2011: Member of the Scientific Council of CSAVRI of the University of Florence (Centro di Servizi di Ateneo per la Valorizzazione della Ricerca e la gestione dell'Incubatore universitario, IUF).
- since 2011: Referent for the University of Florence of the APRE Toscana.
- since 2011: Member of the Scientific Committe of the joined lab industry-university INEA LAB, "Laboratorio per l'Ingegneria Elettroacustica".
- 2011: General co-Chair of the DMS 2011, Florence, Italy, 17th International Conference on Distributed Multimedia Systems, located at the Convitto della Calza (http://www.calza.it/it/) Florence, Italy, August

18 to 20, 2011, Organized by Knowledge Systems Institute, USA, University of Florence, Italy; and the University of Leeds, UK.

- 2011: program committe member of 34th Software Engineering Workshop (SEW-2011), Limerick, Ireland, 20-21 June 2011.
- since 2010: editorial board member of International Journal of Software Engineering and Knowledge Engineering (IJSEKE), World Scientific, ISSN: 0218-1940.
- since 2010: Member of the Scientific Committe of the National Journal Leadership and Managment, Tecna Editrice.
- since 2010: Coordinator of ECLAP project ICT PsP of the European Commission in connection with the European Digital Libray, EUROPEANA.
- since 2010: Technical coordinator of Palamede e-Journal.press project for Florence University Press, FUP.
- 2010: Invited talk of Paolo Nesi at the C.A.P.I. European Federation: Invitation to the forum discussion, 23rd February 2010, European Parliament, "Piracy and file sharing: challenges and perspectives For the Digital Renaissance".
- 2010: Program committe member of ICSOFT 2010 international conference.
- 2010: DMS 2010: Programme co-chair with Kia Ng of the Sixteenth International Conference on Distributed Multimedia Systems Hyatt Lodge at McDonald's Campus, Oak Brook, Illinois, USA, October 14 - October 16, 2010, Organized by Knowledge Systems Institute Graduate School. The DMS conference is an international conference series, which covers a wide spectrum of paper presentations, technical discussions and demonstrations in the fields of distributed multimedia computing. Started in 1994, the series of conference has been held at Hawaii, Hong Kong, Vancouver, Taipei, Aizu-Wakamatsu, Japan, San Francisco, Miami and Canada.
- 2009: MIREX 2009 competition about the polyphonic music transcoding algorithms and tools. Multiple Fundamental Frequency Estimation & Tracking Results, resulted to be the winner for the Tukey-Kramer HSD Multi-Comparison for Task2B (Piano) coauthored with F. Argenti and G. Pantaleo.
- 2004-2008: AXMEDIS IST FP6 IP project coordinator.
- since 2008: members of the Italcertifer Certification Committe on railway mater and lanes, for the Uniersity of Florence.
- since 2007: vice director of Department of Systems and Informatics of the University of Florence.
- 2003-2007: Cochair (with Giorgio Zoia, EPFL) of the MPEG ISO Group on Music Notation Requirements, and thus Editor of the MPEG ISO Symbolic Music Representation Standard. Then Editor of MPEG-SMR standard.
- 1994-2005: Member of the Editorial board of the Journal of Real-Time Imaging, Academic Press.
- 2000-2004: Chair of Steering Committee of WEB Delivering of Music Conference
- 1999-2003: WEDELMUSIC ICT STREP FP5 project coordinator. The WEDELMUSIC project has been selected as one of the best top 20 projects in the area of "Cross media content and publishing" for the FP 5 of the European Commission. On such grounds it has been granted with the support of the ADOPT-IT project, even after the WEDELMUSIC project reached its end.
- 2002: ninth in the international contest as best researcher in the area of Software Engineering, the only Italian to receive the title of "9th Best Researcher in Software Engineer in the world (2002)", see above for further references.
- 2002: finalist in the area of Information Technology of Pirelli Internet Technology Award 2002, among more than 1200 submitted papers, with his research work for the project WEDELMUSIC IST FP 5.
- 2001: eleventh in the international contest, the only Italian to receive the title of "11th Best Researcher in Software Engineer in the world (2001) and the 3rd in Europe": identified as the 11th in the top 15 list of Systems and Software Engineering for the period 1997-2001. Such result was identified within the annual survey held by the Journal of Systems and Software (JSS), released on the Journal of Systems and Software thirteenth issue of year 2002. Their evaluation criteria are based on research publications appeared in the best qualified scientific reviews of Software Engineering: Information and Software Technology, Journal of Systems and Software, Software Practice and Experience, IEEE Software, ACM Transactions on Software Engineering and Methodologies, IEEE Transactions on Software Engineering.
- 2001: Winner of the Best Paper Award of IEEE ICECCS2001 for: P. Bellini, P. Nesi, ``Communicating TILCO: a model for Real-Time System Specification", Best Paper Award, Proc. of the 7th ``IEEE International Conference on Engineering of Complex Computer Systems'', ICECCS'01, IEEE Press, Sweden, June 2001.
- 2001: finalist in the area of Information Technology of Discovery technology award, among several submitted papers, with his research work for the MOODS project, where Prof. P. Nesi was coordinator.

The project itself has been proposed for candidacy by the Disney Company in 2001.

- 2000: Vice Chair of IEEE Technical Committee on Complex Computer Systems. Click here for the conference and committee history.
- 2000: Member of the Steering Committee of the IEEE International Conference on Complex Computer Systems, 2000.
- since 1996, member of the Editorial board of the CRC Press Book Series on Image Processing.
- "Software Engineering" area editor for the realization of technical Dictionary: "Computer Science, Engineering and Technology" of CRC Press, 1998-2000.
- Etc.

He has organized and has taken part into many conferences, playing different roles, among them:

- 2011: General co-Chair of the DMS 2011, Florence, Italy.
- DMS 2010, program co-chair with Kia Ng.
- keynote Speaker for the 2nd International Symposium on Intelligent Interactive Multimedia Systems and Services, IIMSS2009, Hosted by University of Milan, Mogliano Veneto, 16-17 July 2009. SLIDES
- Workshop chair, Distributed Multimedia Computing, in DMS 2009, The 15th International Conference on Distributed Multimedia Systems (DMS'09), Redwood City, San Francisco Bay, USA, September 10-12, 2009, 2009 http://www.ksi.edu/seke/dms09.html
- General Chair of AXMEDIS 2008 International Conference, Florence, Nov 2008, Italy, IEEE Computer Society press, and Florence University press proceedings.
- Workshop chair, Distributed Multimedia Computing, in DMS 2008, The 14th International Conference on Distributed Multimedia Systems (DMS'08), Hyatt Harborside at Logan Int'l Airport, Boston, USA September 4 - September 6, 2008 http://www.ksi.edu/seke/dms08.html
- General Chair of AXMEDIS 2005 International Conference on Automated Production of Cross Media Content for Multi-Channel Distribution, Florence, 30 Nov-2 December 2005, Italy, IEEE Computer Society press, and Florence University press proceedings.
- General Chair of the 5th Open Workshop of the MUSICNETWORK, Wien, Austria, 4-5 July 2005.
- General Chair Workshop on Assessment Model for Symbolic Music Representation, Palma de Mallorca, Spain, with MPEG AHG on SMR, October 2004.
- General Chair, 4th Open Workshop of the MUSICNETWORK, Barcelona, September 2004.
- General co-Chair (with A. Fantechi) of the ICECCS 2004, IEEE International Conference on Engineering of Complex Computer Systems, Florence, Italy, 14-16 April, 2004.
- Program Co-Chair of WEDELMUSIC2002, the International Conference on Web Delivering of Music, Darmstadt, December 2002, Germany
- General Chair of the IEEE International Conference on Software Maintenance, ICSM'2001, held 5-10, November 2001 in Florence, Italy.
- General Chair of the International Conference on Web Delivering of Music, WEDELMUSIC2001, Florence 23-24 November 2001, Italy, IEEE issued proceedings.
- Organizing Member of the 7th IEEE Workshop on Empirical Studies of Software Maintenance, held in Florence, Italy, November 2001.
- Several other program activities as program chair, track chair, workshop chair, tutorial speacker, keynote speacker, advisor, etc.
- etc.

He has been and he is actually member of many Conference Committees and International Conference Series Committees such as: IEEE ICSE, IEEE METRICS, IEEE ICSM, IEEE ICECCS, CSRM, AXMEDIS, WEDELMUSIC, CIM, PROFES, AQUIS, VIRTUAL Goods, NASA conf, ITA, ICMC, SEKE, RTI, ICSOFT, CHItaly of ACM, AIIA, DMS of SEKE, etc.

He has published more than 200 articles for conferences and journals with international reviews, and books, without forgetting hundreds of reports related to E.C. funded R&D projects, and many many contributions to Standardisation Bodies such as MPEG ISO especially on the MPEG-4 SMR, MPEG-21 IPMP and REL, MPEG MW3 (Multimedia Middelware).

He is author of several papers in reviews such as: IEEE Transactions on Software Engineering, IEEE Transactions on Image Processing, IEEE Transactions on Circuits and Systems II, IEEE Transactions on

Systems Man and Cybernetics, ACM Transactions on Computer Human Interaction, ACM Computing Survey, IEEE Software, IEEE Computer, IEEE Multimedia, Real-Time Systems: the International Journal of Time Critical Systems, Journal of Information and Software Technology, Signal Processing, Journal on Applied Artificial Intelligence, Journal of Systems and Software, Journal of Real Time Imaging, International Journal of Human Computer Studies, etc.
He has done many workshops at invitation and he has prepared many tutorials and keynotes for industry and above mentioned well known conferences series.

He has been Chair of the Standardisation group in the MPEG ISO (International Standard Organization), for the MPEG SMR, for MPEG M3W (middleware for software component distribution), MPEG-21 (distribution and DRM models, protection models). Many of his contributions have been taken into account and are at present an integrated part of world-wide standards, like MPEG ISO. He is actually editor in standards such as MPEG SMR and MPEG M3W (as research group).
He has promoted and he has been scientific responsible of international research projects such as: ICARO, TRACE-IT, RAISSS, ECLAP, SACVAR, ECLAP, IMAESTRO, MUPAAC, WEDELMUSIC, MUSICNETWORK, ICCOC, MOODS, IMEASY, VISICON, VARIAZIONI, OFCOMP, OPTAMS, AXMEDIS, ECLAP and so forth. For further reference on each and every project. He has played the role of Project Coordinator for MOODS, MUSICNETWORK, WEDELMUSIC,AXMEDIS, and ECLAP.

CONTACT:

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DINFO: Dipartimento di Ingegneria dell'Informazione
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Faculty of Engineering, School of Engineering
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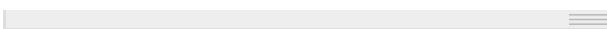
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Conference location

Hotel Corona d'Italia

Grand Hotel Baglioni

Grand Hotel Cavour