# Petri Nets 2012

# 33rd INTERNATIONAL CONFERENCE ON APPLICATION AND THEORY OF PETRI NETS AND CONCURRENCY

# Hamburg, Germany, June 25–29, 2012

Additional information about the conference will be published via http://www.informatik.uni-hamburg.de/TGI/events/pn2012/

Contact e-mail: PetriNets2012@informatik.uni-hamburg.de

The conference will be co-located with the 12th International Conference on Application of Concurrency to System Design (ACSD 2012).

#### **Important Dates:**

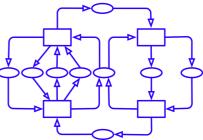
Submission of Workshop Proposals: June 7, 2011 Submission of Tutorial Proposals: January 10, 2012 Submission of Papers: January 10, 2012 Notification: March 1, 2012 Final Version Due: April 1, 2012 Participation in Tool Exhibition: June 1, 2012 Workshops & Tutorials: June 25-26, 2012 June 27-29, 2012 Conference: The deadline for submission of papers is STRICT. However, if you submit the title page by January 10 it is sufficient to submit the full paper by January 15.

Some of the best papers accepted for the conference will be invited as submissions to a special issue of the *Fundamenta Informaticae* journal.









The 33rd annual international Petri Net conference will be organised by the Theoretical Foundations of Computer Science Group, Department of Informatics, University of Hamburg and HITEC. The conference takes place under the auspices of the Academia Europaea, EATCS, and GI SIG "Petri Nets and Related System Models". The language of the conference is English, and its proceedings will be published by Springer-Verlag in Lecture Notes in Computer Science. All accepted papers will be considered for the "Outstanding Paper" award(s). Papers presenting original research on application or theory of Petri nets, as well as contributions addressing topics relevant to the general field of distributed and concurrent systems are sought.

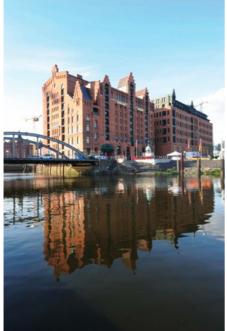


Photo: www.mediaserver.hamburg.de/T. Hampel

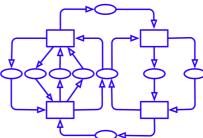
## **Topics specific to Petri Nets**

- · System design using nets
- · Analysis and synthesis, structure and behaviour of nets
- · Relationships between Petri Nets and other approaches
- · Net-based semantical, logical and algebraic calculi
- Symbolic net representation (graphical or textual)
- Computer tools for nets
- · Experience with using nets, case studies
- · Higher-level net models
- · Timed and stochastic nets
- Standardisation of nets
- · Experience reports describing applications of nets to different kinds of systems and application fields, e.g.:
  - flexible manufacturing systems
  - o real-time systems
  - o embedded systems
  - o defence systems
  - o biological systems
  - health and medical systems
  - o environmental systems
  - hardware
  - o telecommunications
  - railway networks

- o office automation
- workflows
- o supervisory control
- o protocols and networks
- Internet
- o e-commerce and trading
- o programming languages
- performance evaluation
- o operations research







## General topics related to concurrency

- · Model checking and verification of distributed systems
- Verification of infinite-state or parametric systems
- · Causality/partial order theory of concurrency
- Educational issues related to concurrency
- · New issues and developments in the theory of concurrency
- · Modelling of hardware and biological systems

## **Paper Submissions**

Two kinds of papers can be submitted:

- regular papers (max 20 pages) describing original results pertaining to the development of the theory of Petri Nets and distributed and concurrent systems in general, new results extending the applicability of Petri Nets, or case studies, application and experience reports pertinent to the practical use of Petri Nets and concurrency. For papers describing the experiences from applications of Petri Nets, authors are encouraged to consult the document: <a href="https://example.com/applicationFormat.pdf">ApplicationFormat.pdf</a>.
- tool papers (max 10 pages) describing a computer tool based on Petri Nets (not an application of the tool or the theory behind the tool). For more information, please see the document: ToolFormat.pdf. The tool should be available for use by other groups (but not necessarily for free). The submission should indicate how the reviewers can get access to the tool (this must be for free). The tool will be demonstrated in the Tool Exhibition, in addition to being presented in a conference talk.

#### Submitted papers must:

- be contributions that have not been published or submitted to other conferences/journals before or in parallel with this conference.
- clearly state the problem being addressed, the goal of the work, the results achieved, and the relation to other work.
- be in English and in the Springer LNCS-format: <a href="http://www.springer.de/comp/lncs/authors.html">http://www.springer.de/comp/lncs/authors.html</a>.
- adhere to the page limit for the relevant category (see above).
- be sent electronically (as a PDF file) no later than January 10, 2012 using the website <a href="http://www.easychair.org/conferences/?conf=petrinets2012">http://www.easychair.org/conferences/?conf=petrinets2012</a>.

#### The title page must:

- contain a short abstract and a classification of the topics covered, preferably using the list of topics above.
- clearly indicate whether the paper is submitted as a regular paper or tool paper.

Authors will be notified about the outcome of the evaluation procedure by March 1, 2012. Submissions violating the above requirements may be immediately rejected by the PC Chairs.

## **Tool Exhibition**

An exhibition of Petri net tools takes place on Wednesday. It consists of informal demonstrations for small groups/individuals, and there are no scheduled talks. Requests for participation in the tool exhibition must be sent to the Tool Exhibition Chair before June 1, 2012. They should include a link to the web pages for the tool (or a short description of the tool). The demonstrators bring their own machines, while the organisers may be requested to give access to the Internet.

## **Workshops and Tutorials**

The conference takes place from Wednesday to Friday. The days before the conference also offer a wide range of activities.

The **Petri Net Course** takes place from Sunday to Tuesday. It offers a thorough introduction to Petri Nets and consists of four parts: Basic Net Classes, Coloured Petri Nets, Timed and Stochastic Petri Nets, and Applications of Petri Nets. If all four parts are followed, 3 ECTS credit points can be awarded to a participant. For further information please contact Jetty Kleijn ( kleijn@liacs.nl ) or Jörg Desel ( joerg.desel@fernuni-hagen.de).

The **Workshops** and **Advanced Tutorials** take place on Monday and Tuesday. A detailed description of the tutorials and workshops will be available via the conference web pages.

It is also possible to arrange **Meetings and Courses** related to Petri Nets. Submissions for such activities must contain a 2–5 page description. They must be received by the PC-chairs no later than January 10, 2012.

## **Organisation**

#### **Program Committee Co-Chair**

## Serge Haddad

LSV, CNRS & ENS de Cachan 61, avenue du Président Wilson 94235 CACHAN Cedex France

Phone: +33 (0)1 47 40 75 24 Fax: +33 (0)1 47 40 75 21

E-mail: haddad@lsv.ens-cachan.fr

#### **Program Committee Co-Chair**

Lucia Pomello

University of Milano - Bicocca Department of Computer Science, Systems and Communication (DISCo) Viale Sarca 336 - Edificio U14 20126 Milano

Italy

Phone: +39 02 6448 7816 Fax: +39 02 6448 7839

E-mail: pomello@disco.unimib.it

#### **Workshop and Tutorial Co-Chair**

Alex Yakovlev

Newcastle University

School of Electrical, Electronic and Computer Engineering

Merz Court

Claremont Road Newcastle upon Tyne

NE1 7RU United Kingdom

Phone: +44 191-222-8184 Fax: +44 191-222-8180

E-mail: alex.yakovlev@newcastle.ac.uk

#### **Organising Committee Chair**

Daniel Moldt

University of Hamburg

Theoretical Foundations of Informatics

Vogt-Kölln-Strasse 30 Hamburg, 22527 Germany

Phone: +49 (0)40 42883 2247 Fax: +49 (0)40 42883 2246

E-mail: PetriNets2012+organisation@informatik.uni-hamburg.de

## **Publicity Chairs**

Michael Duvigneau

Thomas Wagner

University of Hamburg

Theoretical Foundations of Informatics

Vogt-Kölln-Strasse 30 Hamburg, 22527

Germany

Phone: +49 (0)40 42883 2236 Fax: +49 (0)40 42883 2246

E-mail: PetriNets2012+publicity@informatik.uni-hamburg.de

#### Workshop and Tutorial Co-Chair

Wil van der Aalst

Eindhoven University of Technology

Department of Mathematics and Computer Science PO Box 513

NL-5600 MB Eindhoven The Netherlands

Phone: +31 40 247.4295/2733/2290

ax: +31 40 246.3992

E-mail: w.m.p.v.d.aalst@tue.nl

#### Tools Exhibition Chair

Lawrence Cabac

University of Hamburg

Theoretical Foundations of Informatics

Vogt-Kölln-Strasse 30 Hamburg, 22527 Germany

Phone: +49 (0)40 42883 2237 Fax: +49 (0)40 42883 2246

E-mail: PetriNets2012+tools@informatik.uni-hamburg.de



Photo: www.mediaserver.hamburg.de, C. Spahrbier

# **Program Committee**

G. Balbo, Italy

 $M.\ Bednarczyk, Poland$ 

J. Billington, Australia

J. Carmona, Spain

G. Ciardo, USA J.M. Colom, Spain

J. Desel, Germany

R. Devillers, Belgium

J. Esparza, Germany

D. Fahland, The Netherlands

A. Giua, Italy

L. Gomes, Portugal

S. Haddad, France (co-chair)

K. Hiraishi, Japan

R. Janicki, Canada

V. Khomenko, UK

E. Kindler, Denmark

J. Kleijn, The Netherlands

L.M. Kristensen, Norway

R. Lazic, UK

C. Lin, China

A. Miner, USA

M. Mukund, India

L. Petrucci, France

L. Pomello, Italy (co-chair)

W. Reisig, Germany

S. Taoka, Japan

R. Valk, Germany

A. Valmari, Finland

H. Völzer, Switzerland

## **Steering Committee**

W. van der Aalst, The Netherlands

J. Billington, Australia

G. Ciardo, USA

J. Desel, Germany

S. Donatelli, Italy

S. Haddad, France

K. Hiraishi, Japan

K. Jensen, Denmark

J. Kleijn, The Netherlands

M. Koutny, UK (chair)

C. Lin, China

W. Penczek, Poland

L. Pomello, Italy

W. Reisig, Germany

G. Rozenberg, The Netherlands

M. Silva, Spain

A. Valmari, Finland

A. Yakovlev, UK

## **History of the Conference**

The aim of the conference is to create a forum for discussing progress in the application and theory of Petri nets. Typically, the conferences have 100–150 participants - some of these coming from industry, the rest from universities and research institutions. The conference takes place in the last week of June. The proceedings are published by Springer-Verlag as Lecture Notes in Computer Science (<a href="http://www.springer.de/comp/lncs/">http://www.springer.de/comp/lncs/</a>).

1. 1980 Strasbourg, France 2. 1981 Bad Honnef, Germany 3. 1982 Varenna, Italy 4. 1983 Toulouse, France 5. 1984 Aarhus, Denmark 6. 1985 Espoo, Finland 7. 1986 Oxford, UK 8. 1987 Zaragoza, Spain 9. 1988 Venice, Italy 10. 1989 Bonn, Germany 11. 1990 Paris, France 12. 1991 Aarhus, Denmark 13. 1992 Sheffield, UK 14. 1993 Chicago, USA 15. 1994 Zaragoza, Spain 16. 1995 Torino, Italy

17. 1996 Osaka, Japan 18. 1997 Toulouse, France 19. 1998 Lisbon, Portugal 20. 1999 Williamsburg, USA 21. 2000 Aarhus, Denmark 22. 2001 Newcastle upon Tyne, UK 23. 2002 Adelaide, Australia 24. 2003 Eindhoven, The Netherlands 25. 2004 Bologna, Italy 26. 2005 Miami, USA 27. 2006 Turku, Finland 28. 2007 Siedlce, Poland 29. 2008 Xi'an, China 30. 2009 Paris, France 31. 2010 Braga, Portugal 32. 2011 Newcastle upon Tyne, UK

Other Major Activities of the Petri Net Community

## **Petri Net Newsletter**

The <u>newsletter</u> is published twice a year by the Special Interest Group on Petri Nets and Related System Models of the Gesellschaft für Informatik. It contains refereed articles, surveys and state-of-the-art reports. Moreover, it contains work-in-progress papers, all kinds of announcements, programs and reports on meetings and activities, information on theses and new books, and abstracts of recent publications. The executive editor is:

• Robert Lorenz

E-mail: robert.lorenz@informatik.uni-augsburg.de

Web: http://www.informatik.uni-augsburg.de/lehrstuehle/inf/mitarbeiter/lorenz/

Contributions should be sent to the editor. Deadlines are mid March and mid September. Further information as well as subscription forms can be obtained from the editor or from the Petri Net Newsletter web site: <a href="http://www.informatik.uni-augsburg.de/pnnl/">http://www.informatik.uni-augsburg.de/pnnl/</a>.

## Transactions on Petri Nets and Other Models of Concurrency (ToPNoC)

ToPNoC (http://www.springer.com/lncs/topnoc) is published by Springer-Verlag as a journal subline in Lecture Notes in Computer Science (LNCS). ToPNoC contains: revised versions of some of the best papers from workshops and tutorials at the annual Petri net conferences, special sections/issues within particular subareas (like some of those which have been published as volumes in "Advances in Petri Nets"), and papers submitted directly to ToPNoC by their authors. To get more information about ToPNoC please contact the editor-in-chief:

• Kurt Jensen

E-mail: kjensen@cs.au.dk

Web: http://person.au.dk/en/kjensen@cs

## **Advanced Courses on Petri Nets**

These courses are organised periodically in order to present the progress in Petri net research and applications. The fifth Advanced Course took place in Rostock, Germany, September 13–24, 2010. Karsten Wolf was course director and head of the local organising committee while Wil van der Aalst, Gianfranco Balbo and Maciej Koutny were scientific directors. More detailed information about the course are available on the web page <a href="http://www.petrinet-summerschool.org">http://www.petrinet-summerschool.org</a>. Previously there have been Advanced Courses in: Hamburg 1979, Bad Honnef 1986, <a href="Dagstuhl 1996">Dagstuhl 1996</a> and <a href="Eichstätt">Eichstätt</a> <a href="2003">2003</a>. The material from the courses is published by Springer-Verlag as Lecture Notes in Computer Science.

# Petri Net WWW and Petri Net Mailing

These electronic services are used to disseminate announcements, questions, bibliographies, tool information, addresses, and all other kinds of Petri net related information. The services are maintained by the TGI group at University of Hamburg, Germany. More information can be obtained at the following addresses:

• Daniel Moldt and Matthias Wester-Ebbinghaus and Thomas Wagner

E-mail: petriadm@informatik.uni-hamburg.de

Web: http://www.informatik.uni-hamburg.de/TGI/PetriNets/