



## Call for Papers and Announcement PETRI NETS 2023

### 44th INTERNATIONAL CONFERENCE ON APPLICATION AND THEORY OF PETRI NETS AND CONCURRENCY

25–30 June 2023, Lisbon, Portugal

<https://petrinets2023.github.io/> | email: [petrinets2023@campus.fct.unl.pt](mailto:petrinets2023@campus.fct.unl.pt)

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|----------------------|----------------------|
| Abstract submission  | January 13, 2023 (*) |
| Submission of papers | January 20, 2023 (*) |
| Notification         | March 5, 2023        |
| Final version due    | March 18, 2023 (*)   |

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|-------------------------------------|------------------|
| Registration for Tool Presentations | May 31, 2023     |
| Petri Net Course                    | June 25–27, 2023 |
| Workshops and Tutorials             | June 26–27, 2023 |
| Main Conference                     | June 28–30, 2023 |

(\*) The deadline is the end of day Anywhere on Earth (AoE)

The **44th annual international Petri Nets conference** will be organised by the **R&D Group on Reconfigurable and Embedded Systems** at NOVA School of Science and Technology and will be held at Lisbon on one of the campi of NOVA University Lisbon.

The language of the conference is English, and its proceedings will be published by **Springer-Verlag in Lecture Notes in Computer Science**. 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** or focused on **applications of concurrency to systems design** are encouraged to submit.

All accepted papers will be considered for an *Outstanding Paper* award. Authors of **selected papers** presented at the conference will be invited to submit an extended version that will be further reviewed for inclusion into a special issue of a renowned journal.

#### Topics specific to Petri Nets

- Analysis and synthesis, structure and behaviour of nets
- System design and model-driven development using nets
- Relationships between Petri nets and other approaches
- Net-based semantical, logical and algebraic calculi
- Higher-level net models (e.g, coloured nets, timed nets)
- Stochastic net models
- Verification and model checking using nets
- Process discovery and conformance checking
- Computer tools for nets
- Standardisation of nets
- Experience reports describing applications of nets to different kinds of systems and application fields, e.g.:
  - flexible manufacturing systems
  - real-time systems
  - embedded systems
  - biological systems
  - health and medical systems
  - Internet and Web services
  - e-commerce and trading
  - programming languages
  - protocols and networks
  - component based development
  - office automation
  - workflows
  - process mining
  - supervisory control
  - railway networks
  - environmental systems
  - hardware
  - telecommunications
  - performance evaluation
  - operations research

#### General topics of interest related to concurrency

- Application of concurrency to system design:
  - formal models (e.g., dataflow models, communicating automata, process algebras, modal and temporal logics) for designing computer systems with concurrent behaviour
  - applied research aimed at designing computer systems which exhibit 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 developments in the theory of concurrency
- Modelling of hardware and biological systems

## Paper Submission

Two kinds of papers can be submitted:

- **Regular papers (max. 20 pages excluding references)** 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.
- **Tool papers (max. 10 pages excluding references)** describing a computer tool based on Petri nets (not an application of the tool or the theory behind the tool). 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.

Papers must be written in English using the Springer LNCS format: <https://www.springer.com/gp/computer-science/lncs/conference-proceedings-guidelines>, including line numbers (*e.g.* `lineno` L<sup>A</sup>T<sub>E</sub>X package) and submitted electronically (as a PDF file) by the deadline indicated at the top of this Call for Papers using EasyChair

<https://easychair.org/conferences/?conf=petrinets2023>

## Tool Exhibition

An exhibition of Petri net tools will take 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 chairs by the deadline stated at the top of this Call for Papers. They should include a link to the Web pages for the tool (or a short description of the tool). The demonstrators should bring their own laptops, while the organisers may be requested to give access to the Internet.

## Courses, Workshops and Tutorials

The main conference takes place from Wednesday 28 to Friday 30. The three days before the main conference also offer a wide range of activities. The **Petri Net Course** takes place from Sunday 25 to Tuesday 27. It offers a thorough introduction to Petri nets in four half-day modules on Sunday 25 and Monday 26, and a full-day tutorial module on Tuesday 27. For successful participation in the entire course, including preparation and examination, three credit points (ECTS) will be awarded. Each module of the course can also be taken separately, without any credit. Detailed descriptions of Workshops and Tutorials will be made 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 Workshops chairs via email no later than January 13, 2023.

## Organisation

### Programme committee co-chairs

Luis Gomes  
NOVA University Lisbon, Portugal  
Robert Lorenz  
Universität Augsburg, Germany

### General organising chairs

Anikó Costa  
NOVA University Lisbon, Portugal  
Isabel Sofia Brito  
Instituto Politécnico de Beja, Portugal

### Tool exhibition chairs:

Filipe Moutinho  
NOVA University Lisbon, Portugal  
Fernando Pereira  
ISEL, Portugal

### Programme committee

Elvio Amparore, Italy  
Abel Armas Cervantes, Australia  
Paolo Baldan, Italy  
João Paulo Barros, Portugal  
Béatrice Bérard, France  
Luca Bernardinello, Italy  
Didier Buchs, Switzerland  
Raymond Devillers, Belgium  
Jörg Desel, Germany  
Susanna Donatelli, Italy  
Natalia Sidorova, The Netherlands  
Javier Esparza, Germany

João Miguel Fernandes, Portugal  
David de Frutos Escrig, Spain  
Stefan Haar, France  
Xudong He, USA  
Loïc Helouet, France  
Ryszard Janicki, Canada  
Anna Kalenkova, Australia  
Jörg Keller, Germany  
Ekkart Kindler, Denmark  
Michael Köhler-Bußmeier, Germany  
Irina Lomazova, Russia  
Lukasz Mikulski, Poland

### Steering committee

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L. Pomello, Italy  
W. Reisig, Germany  
G. Rozenberg, The Netherlands  
A. Valmari, Finland  
A. Yakovlev, UK

### Workshops co-chairs

Susanna Donatelli  
Università di Torino, Italy  
Robin Bergenthum  
Fern Universität, Germany

### Petri Net Course and Tutorials co-chairs

Jörg Desel  
Fern Universität in Hagen, Germany  
Jetty Kleijn  
Leiden University, The Netherlands

Andrew Miner, USA  
Marco Montali, Italy  
Laure Petrucci, France  
Jaco van de Pol, Denmark  
Artem Polyvyanyy, Australia  
Pierre-Alain Reynier  
Arnaud Sangnier, France  
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