Call for Papers and Announcement
Petri Nets 2021

42nd INTERNATIONAL CONFERENCE ON APPLICATION AND THEORY OF PETRI NETS AND CONCURRENCY
& special track on Application of Concurrency to System Design (ACSD)

21–25 June 2021, Paris, France

Additional information about the conference will be published via [http://conf-2021.petrinet.net](http://conf-2021.petrinet.net)

Contact: pn2021@petrinet.net

The 42nd annual international Petri Nets conference will be organised by the LoVe (Logics and Verification) team of the computer science laboratory LIPN (Laboratoire d’Informatique de Paris Nord), University Sorbonne Paris Nord and CNRS, jointly with members of the Paris region MeFoSyLoMa group (Méthodes Formelles pour les Systèmes Logiciels et Matériels). The conference will take place at the Maison des Sciences de l’Homme, which fosters and promotes research in humanities and social sciences. 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 are sought. Authors from the applications of concurrency to systems design are encouraged to submit to this special track. 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 Fundamenta Informaticae.

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 developments in the theory of concurrency
- Modelling of hardware and biological systems

Special track on ACSD (Application of Concurrency to System Design) Both theoretical and applied research about formal approaches (in a broad sense) to designing computer systems that exhibit concurrent behaviour. The formal models of computation and concurrency for the above systems and problems are not limited by Petri nets, but also include models like dataflow models, communicating automata, process algebras, graph rewriting systems, state charts, MSCs, modal and temporal logics.

Important dates:
- Abstract submission: January 13, 2021 (*)
- Submission of papers: January 20, 2021 (*)
- Notification: March 5, 2021
- Final version due: March 19, 2021 (*)
- Participation in Tool Exhibition: May 31, 2021
- Workshops and Tutorials: June 21–22, 2021
- Main Conference: June 23–25, 2021

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

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 (coloured nets, timed nets, etc.)
- 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
  - environmental systems
  - computer systems
  - telecommunication systems
  - railway networks
  - component based development

Other fields:
- Office automation workflows
- Process mining supervisory control
- Protocols and networks Internet and Web services
- E-commerce and trading programming languages
- Performance evaluation operations research
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 free use by other groups (but not necessarily for free). The submission should indicate how the reviewers can access 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: [http://www.springer.de/comp/lncs/authors.html](http://www.springer.de/comp/lncs/authors.html), including line numbers (e.g. `\texttt{\textbackslash line number}`) and submitted electronically (as a PDF file) by the deadline indicated at the top of this Call for Papers using Easy-Chair: [https://easychair.org/conferences/?conf=petrinets2021](https://easychair.org/conferences/?conf=petrinets2021)

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 organizers may be requested to give access to the Internet.

Courses, Workshops and Tutorials:
The main conference takes place from Wednesday 23 to Friday 25. The three days before the main conference also offer a wide range of activities. The Petri Net Course takes place from Sunday 20 to Tuesday 22. It offers a thorough introduction to Petri nets in four half-day modules on Sunday and Monday 21, and a full-day tutorial module on Tuesday 22. 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 and Tutorials chairs via email no later than January 10, 2021.

Organisation

**Programme Committee co-chairs:**
Didier Buchs
University of Geneva, Switzerland

Josep Carmona
Universitat Politècnica de Catalunya, Spain

Jörg Desel (ACSD track)
FernUniversität in Hagen, Germany

Alex Yakovlev (ACSD track)
University of Newcastle-upon-Tyne, UK

**Workshops co-chairs:**
Gianfranco Ciardo
Iowa State University, USA

Daniel Mokht
Universität Hamburg, Germany

Thomas Châtain (organisation)
LSV, CNRS, ENS Paris-Saclay, France

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**General chairs:**
Laure Petrucci
LIPN, CNRS,
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**Tool exhibition chairs:**
Benoit Barbot
LAACL, Université Paris 12, France

Alexandre Duret-Lutz
LRDE, EPITA, France

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**Steering committee:**
W. van der Aalst, Germany
G. Ciardo, USA
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J. Kleijn, The Netherlands
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