



## Program Overview

	28 June	29 June	30 June
9:00 - 9:30	Opening		
9:30 - 10:00	Invited 1	Session D	Session G
10:00 - 10:30			
10:30 - 11:00	Coffee	Coffee	Coffee
11:00 - 11:30	Session A	Invited 2	Invited 3
11:30 - 12:00			
12:00 - 12:30	Lunch	Lunch	Lunch
12:30 - 13:00			
13:00 - 13:30			
13:30 - 14:00	Session B	Session E	Session H
14:00 - 14:30			
14:30 - 15:00			Closing
15:00 - 15:30	Coffee	Coffee	
15:30 - 16:00			
16:00 - 16:30	Session C Tools	Session F	
16:30 - 17:00			
17:00 - 17:30			
17:30 - 18:00			

All technical sessions on Room 204 at Building IV of Campus de Caparica, NOVA University Lisbon – NOVA School of Science and Technology (FCT NOVA)

Wednesday 28 June 2023

9:00 – 9:30 Welcome and opening session

9:30 – 10:30 Invited talk (Chair: Wil van der Aalst)

Stefanie Rinderle-Ma

*From Process-Agnostic to Process-Aware Automation, Mining, and Prediction*

10:30 – 11:00 Coffee Break

11:00 – 12:00 Session A: Process Mining 1 (Chair: Felix Mannhardt)

*There and Back Again: On the Reconstructability and Rediscoverability of Typed Jackson Nets*

**Authors:** Daniel Barenholz, Marco Montali, Artem Polyvyanyy, Hajo A. Reijers, Andrey Rivkin and Jan Martijn van der Werf

*ILP<sup>2</sup> Miner – Process Discovery for Partially Ordered Event Logs using Integer Linear Programming*

**Authors:** Sabine Folz-Weinstein, Robin Bergenthum, Jörg Desel and Jakub Kovář

12:00 – 13:30 Lunch (Restaurant at Library building)

13:30 – 15:00 Session B: Semantics (Chair: Luca Bernardinello)

*Token Trail Semantics – Modeling Behavior of Petri Nets with Labeled Petri Nets*

**Authors:** Robin Bergenthum, Sabine Folz-Weinstein and Jakub Kovář

*Interval Traces with Mutex Relation*

**Authors:** Maciej Koutny, Ryszard Janicki and Lukasz Mikulski

*A Myhill-Nerode Theorem for Higher-Dimensional Automata*

**Authors:** Uli Fahrenberg and Krzysztof Ziemiański

15:00 – 15:30 Coffee Break

15:30 – 17:00 Session C: Tools (Chair: Lars Michael Kristensen)

*Hippo-CPS: A Tool for Verification and Analysis of Petri Net-based Cyber-Physical Systems*

**Authors:** Remigiusz Wiśniewski, Grzegorz Bazydło, Marcin Wojnakowski and Mateusz Popławski

*Mochy : a tool for the modeling of concurrent hybrid systems*

**Authors:** Antoine Thebault and Loïc Helouet

*Renew: Modularized Architecture and New Features*

**Authors:** Daniel Moldt, Laif-Oke Clasen, Karl Ihlenfeldt, Jonte Johnsen, Relana Streckenbach, Alexander Heinze, Marcel Hansson, Michael Haustermann and Matthias Feldmann

*Explorative Process Discovery using Activity Projections*

**Authors:** Yisong Zhang and Wil van der Aalst

17:00 – 18:00 Tools Demos & Exhibition @ lobby of Building IV (Chairs: Filipe Moutinho and Fernando Pereira)

*CosyVerif; Presenters: Van-François LE, Jaime ARIAS*

*Mochy; Presenters: Antoine THEBAULT, Loïc HELOUET*

*TINA toolbox; Presenter: Silvano Dal Zilio*

*Hippo-CPS*; Presenter: Remigiusz Wisniewski

*I Love Petri Nets*; Presenters: Robin Bergenthum, Jakub Kovar, Sabine Folz-Weinstein

*Explorative Process Discovery using Activity Projections*; Presenter: Yisong Zhang

*Data-Aware Stochastic Processes – Discovery and Conformance Checking*; Presenter: Felix Mannhardt

*IOPT-Tools*; Presenter: Luis Gomes, Fernando Pereira, Filipe Moutinho

18:00 Bus departure to reception

18:30 – 20:00 Conference Reception at Frigate D. Fernando II e Glória, anchored in the Tagus River. Address: Largo Alfredo Dinis, 2800-252 Almada

Thursday 29 June 2023

9:00 – 10:30 Session D: Verification 1 (Chair: Laure Petrucci)

*Computing Under-approximations of Multivalued Decision Diagram*

**Authors:** Seyedezhahra Hosseini and Gianfranco Ciardo

*Stochastic Decision Petri Nets*

**Authors:** Florian Wittbold, Rebecca Bernemann, Reiko Heckel, Tobias Heindel and Barbara König

*Taking Complete Finite Prefixes To High Level, Symbolically*

**Authors:** Nick Würdemann, Thomas Chatain and Stefan Haar

10:30 – 11:00 Coffee Break

11:00 – 12:00 Invited talk (Chair: Luis Gomes)

Valeriy Vyatkin

*Formal Modelling, Analysis, and Synthesis of Modular Industrial Systems inspired by Net Condition/Event Systems*

12:00 – 13:30 Lunch (Restaurant at Library building)

13:30 – 15:00 Session E: Verification 2 (Chair: Karsten Wolf)

*On the Reversibility of Circular Conservative Petri Nets*

**Authors:** Raymond Devillers

*Automated Polyhedral Abstraction Proving*

**Authors:** Nicolas Amat, Silvano Dal Zilio and Didier Le Botlan

*Experimenting with Stubborn Sets on Petri Nets*

**Authors:** Sami Evangelista

15:00 – 15:30 Coffee Break

15:30 – 16:30 Session F: Timed Models (Chair: Daniel Moldt)

*Symbolic Analysis and Parameter Synthesis for Time Petri Nets Using Maude and SMT Solving*

**Authors:** Jaime Arias, Kyungmin Bae, Carlos Olarte, Peter Ölveczky, Laure Petrucci and Fredrik Rømming

*A state class based controller synthesis approach for Time Petri Nets*

**Authors:** Loriane Leclercq, Didier Lime and Olivier H. Roux

16:30 – 17:30 GI meeting

16:30 – 18:00 1<sup>st</sup> ATPN Padel Tournament (registration required)

19:30 Conference Dinner at “The Spot | Meetings & Events Downtown Lisbon“. Address: Poço do Borratém 12, 1100-555 Lisbon.

Friday 30 June 2023

9:30 – 10:30 Session G: Process Mining 2 (Chair: Robin Bergenthum)

*Modelling Data-Aware Stochastic Processes - Discovery and Conformance Checking*

**Authors:** Felix Mannhardt, Sander J.J. Leemans, Christopher T. Schwanen and Massimiliano de Leoni

*Exact and Approximated Log Alignments for Processes with Inter-case Dependencies*

**Authors:** Dominique Sommers, Natalia Sidorova and Boudewijn van Dongen

10:30 – 11:00 Coffee Break

11:00 – 12:00 Invited talk (Chair: Maciej Koutny)

Boudewijn van Dongen

*Challenges in Conformance Checking: Where Process Mining meets Petri net Theory*

12:00 – 13:30 Lunch (Restaurant at Library building)

13:30 – 14:30 Session H: Model Transformation (Chair: Jetty Kleijn)

*Transforming Dynamic Condition Response Graphs to safe Petri Nets*

**Authors:** Vlad Paul Cosma, Thomas Hildebrandt and Tijs Slaats

*Enriching Heraklit Modules by Agent Interaction Diagrams*

**Authors:** Daniel Moldt, Marcel Hansson, Laif-Oke Clasen, Lukas Seifert, Karl Ihlenfeldt, Kjell Ehlers and Matthias Feldmann

14:30 Closing session

15:00 Farewell

Saturday 1 July 2023

9:00 – 18:00 Rock climbing (registration required)