## PROGRAM of ACPN 2023, Sept. 3-8, Toruń, Poland.

Sunday Sept. 3	Monday Sept. 4	Tuesday Sept. 5	Wednesday Sept. 6	Thursday Sept. 7	Friday Sept. 8
Lectures A & B	Practical 1T / Lecture E	Lecture F / Lecture G	Heraclit & Posters	Lecture H / Practical 4S	Lecture I / Lecture J
13:00 – 14:00 lunch	13:00 – 14:00 lunch	13:00 – 14:00 lunch	13:00 – 14:00 lunch	13:00 – 14:00 lunch	13:00 – 14:00 lunch

## **SUNDAY (Fundamentals)**

Lecture A: (9:00-9:45, 10:00-10:45): Jörg Desel, FernUniversität in Hagen, Germany: Introduction + Modeling Behavior of Distributed Systems	
Lecture B: (11:15-12:00, 12:15-13:00) Wolfgang Reisig, Humboldt Universität zu Berlin, Germany: The Essence of Petri Nets	MORNING
Lecture C: (14:00-14:45, 15:00-15:45) Jetty Kleijn, Leiden University, The Netherlands: From Nets to Behaviour: Petri Nets and their Semantics	
Lecture D: (16:15-17:00, 17:15-18:00) Maciej Koutny, Newcastle University, United Kingdom: From Behaviour to Nets: Petri Net Synthesis	AFTERNOON

#### MONDAY

Practical 1T (9:00-9:45, 10:00-10:45, 11:15-12:00, 12:15-13:00): Xixi Lu, Utrecht University, The Netherlands: Process Mining 1: Model Discovery and Event Log Pre-Processing (Theory-Tool) MORNING

Lecture E (10:00-10:45, 11:15-12:00, 12:15-13:00): Javier Esparza, Technical University of Munich, Germany: Verification of Distributed Systems and Protocols

Practical 1S (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Xixi Lu, Utrecht University, The Netherlands: Process Mining 1: Model Discovery and Event Log Pre-Processing (Case Study)

Practical 2T (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Alex Yakovlev, Newcastle University, United Kingdom: Workcraft – Application of Petri Nets to Asynchronous Circuits **AFTERNOON Design (Theory-Tool)** 

## TUESDAY

Lecture F (10:00-10:45, 11:15-12:00, 12:15-13:00): Sławomir Lasota, University of Warsaw, Poland: The Reachability Problem for Petri Nets MORNING Lecture G (10:00-10:45, 11:15-12:00, 12:15-13:00): Laure Petrucci, LIPN - Université Sorbonne Paris Nord, France: Model Checking Timed and Strategic Properties

Practical 2S (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Alex Yakovlev, Newcastle University, United Kingdom: Workcraft – Application of Petri Nets to Asynchronous Circuits Design (Case Study)

Practical 3T (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Lars Michael Kristensen, Western Norway University of Applied Sciences: Coloured Petri Nets for Concurrent Software Systems Engineering (Theory-Tool)

#### WEDNESDAY

Other Petri net tools (10:00-10:45): Wolfgang Reisig, Humboldt Universität zu Berlin, Germany: Heraclit

Poster session – short presentations (11:15-12:00)

Poster session (12:15-13:00)

MORNING

Practical 3S (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Lars Michael Kristensen, Western Norway University of Applied Sciences: Coloured Petri Nets for Concurrent Software Systems Engineering (Case Study)

Practical 4T (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Natalia Sidorova, Eindhoven University of Technology, The Netherlands: Process Mining 2 – Conformance Checking (Theory-Tool)

### THURSDAY

Lecture H (10:00-10:45, 11:15-12:00, 12:15-13:00): Łukasz Mikulski, Nicolaus Copernicus University, Toruń, Poland: Analysis of Concurrent Systems: Traces and Causal Structures Practical 4S (9:00-9:45, 10:00-10:45, 11:15-12:00, 12:15-13:00): Natalia Sidorova, Eindhoven University of Technology, The Netherlands: Process Mining 2 – Conformance Checking (Case Study) Practical 5T (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Karsten Wolf, University of Rostock, Germany: Efficient Verification of Petri Net Models (Theory-Tool)

Practical 5T (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Karsten Won, onversity of Nostock, Germany. Enclent Vernication of Ferrivet Models (Theory-Tool) Practical 6T (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Susanna Donatelli and Elvio Gilberto Amparore, University of Torino, Italy: Performance Evaluation and (Stochastic) Verification of (Stochastic) Petri Nets (Theory-Tool)

### FRIDAY

Lecture I (10:00-10:45, 11:15-12:00, 12:15-13:00): Kamila Barylska, Nicolaus Copernicus University, Toruń, Poland: Analysis and Synthesis of Some Subclasses of Petri Nets Lecture J (10:00-10:45, 11:15-12:00, 12:15-13:00): Marco Montali, Free University of Bozen-Bolzano, Italy: Data-Aware Processes: Modelling and Verification MORNING

Practical 6S (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Susanna Donatelli and Elvio Gilberto Amparore, University of Torino, Italy: Performance Evaluation and (Stochastic) Verification of (Stochastic) Petri Nets (Case Study)

Practical 5S (14:00-14:45, 15:00-15:45, 16:15-17:00, 17:15-18:00): Karsten Wolf, University of Rostock, Germany: Efficient Verification of Petri Net Models (Case Study) AFTERNOON

# A few practical instructions of reading the program.

The course is composed of **4** introduction lectures called fundamentals (A-D), all take place on Sunday and they do not need any initial knowledge (apart from basic mathematical culture). After such preparation, participants are ready for the rest of the school that may be composed according to personal preferences. We propose **6** lectures (three school hours each, E-J) that cover more advanced topics related to Petri nets and **6 practical sessions** (1-6), containing four school hours of seminar (T) with necessary theoretical background and tools introduction, followed by four school hours of more hands-on sessions (S) when participants will be able to make some exercises. Planning to take a part in a hands-on part of a particular practical session, please attend the appropriate theoretical introduction (usually scheduled one day earlier). On Wednesday morning there is a chance to present the participants own research – after the presentation of **Heraclit** infrastructure, we have time for short **teasers** and for a **poster session**. Coffee breaks and poster session is going to be an opportunity to talk to the lecturers present there.

The plan of each day is very similar:

- we start at 9 or 10, depending on the individual plan,
- have a lunch break at 13 and
- finish about 18.