



## SEMINAR ANNOUNCEMENT

Tuesday May 21<sup>st</sup>, 2024 at 03:00 pm Room "Sala Seminari" - Abacus Building (U14)

## **Analysis of Concurrent Systems: Traces and Causal Structures**

## Speaker Łukasz Mikulski

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## **Abstract**

Relational structures like partial orders that are based on acyclic relations capturing a `before' relationship, can provide versatile frameworks for the modelling and verification of a wide class of concurrent systems behaviour. There are also relational structures with an acyclic `before' (strong precedence) relationship and a possibly cyclic `not later than' (weak precedence) relationship, which can be used for more general concurrent behaviours. However, in each of these cases, the execution model is based on sequences or step sequences of executed actions, where actions are assumed to be executed instantaneously. I will recall the results for the semantics with transitive simultaneity and then drop this restriction and consider executions modelled by interval orders, where actions are assumed to be executed non-instantaneously.

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