

4th-5th September 2020, Vienna (AT), http://hsb2020.conf.tuwien.ac.at

About

HSB is a workshop centring on dynamical models in biology, with an emphasis on both hybrid systems (in the classical sense, i.e., mixed continuous-discrete-stochastic systems) and hybrid approaches that combine modelling, analysis, algorithmic and experimental techniques from different areas.

Topics of interest include, but are not limited to:

- Modelling and analysis of metabolic, signalling, and genetic regulatory networks in living cells.
- Stochastic and hybrid models in biology.
- Models of tissues and organs; physiological models.
- Learning, synthesis, and inference of biosystems.
- Hierarchical systems for multi-scale, multi-domain analysis.
- Abstraction, approximation, discretisation, and model reduction techniques.
- Synthetic biology, cyber-biological / bio-in-the-loop systems, biomedical systems and devices, and biorobotics.
- Game-theoretical frameworks and population models in biology.
- Quantitative and formal analysis techniques (e.g. reachability, model checking, abstract interpretation, bifurcation theory).
- Modelling languages and logics for biosystems.

PC co-Chairs

- Laura Nenzi, TU Wien & University of Trieste
- Max Tschaikowski, Aalborg University

Invited speakers

- Luca Cardelli, University of Oxford
- Thomas Henzinger, IST Austria

Format

Submissions should be submitted in form of abstracts (2 pages LNCS style)

A special issue on HSB 2020 will appear in Information and Computation.



Important dates

- Submission deadline: 2nd February 2020
- Author notification: 6th March 2020
- Workshop: 4th-5th September 2020