

CALL FOR PAPERS Biosystems: special issue



“Membrane Computing – applications in Systems Biology” Miguel Camara, Marian Gheorghe, Natalio Krasnogor (Eds.)

Membrane computing emerged as a research topic in 2000 and is growing fast - in 2003 the Thompson Institute for Scientific Information has characterised the initial paper as "fast breaking" and the domain as "emergent research front in computer science". Since 2000 several volumes and a large number of papers have appeared reporting on the scientific progress viz-a-viz various *structural* aspects of membrane computing.

In contrast, this special issue of the Biosystems journal will focus on **applications of membrane computing to systems biology problems**. The special issue's goal is to collect a number of very high-quality papers describing a variety of membrane computing based models as applied to biological processes that arise at the molecular, organismal or ecological levels. That is, we seek to have a wide repertoire of papers describing membrane systems as applied to systems biology at a range of physical and temporal scales. We will welcome submissions that illustrate **the potential and limitations** of P-systems in systems biology domains; We also encourage papers that compare P-systems based models to other algebraic modelling techniques (e.g. temporal logics, Π -calculus), (stochastic) differential equation, agents based modelling, etc. Some specific areas of interest are (but not limited to):

- P-systems in Genomics, transcriptomics, proteomics, metabolomics, cells, tissue, the physiome, the colony
- P-systems in molecular, cellular interactions, e.g. networks and pathways, etc
- P-systems in metabolism, signalling, dynamics, regulation and control
- Automated P-system model adjustment and inference.
- Methodologies, databases, tools and algorithms for modelling and simulation using P-systems.

The main deadlines for submitting papers are

- 31st March** : papers submission
- 30th June** : review reports
- 31st August** : camera ready format

Papers should be sent to either:

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