# Meta/Mega (Research) Topics in Membrane Computing (Society)

Gheorghe Păun Romanian Academy, Bucharest, RGNC, Sevilla University, Spain

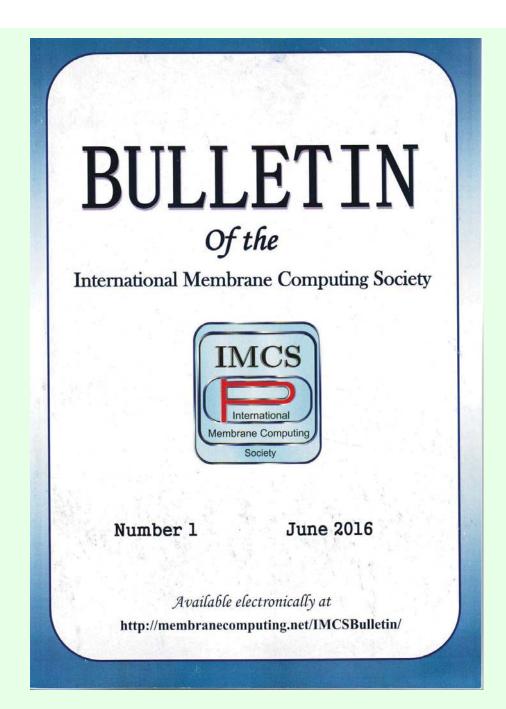
gpaun@us.es, curteadelaarges@gmail.com

Many (research) problems in the previous brainstorming volumes, the handbook, the website, the  $IMCS\ Bulletin$ 

Bulletin of the IMCS:

http://membranecomputing.net/IMCSBulletin/

Contributions, please!...



Three yearly prizes (PhD, theory, application of the year)

Proposals/nominations, please!...



Journal of MC (JMEC)

Particularly important!



#### springer.com



4 issues/year

#### New journal in 2019

► <u>www.springer.com/41965</u> (Available soon)

#### **Open for Submissions**

► <u>www.editorialmanager.com/JMEC</u> (Available soon)

Free access in 2019 and 2020

#### **Journal of Membrane Computing**

Editor-in-Chief: Linqiang Pan Honorary Editor-in-Chief: Gheorghe Păun Managing Editor: Gexiang Zhang

- Covers all aspects of membrane computing, from the theoretical fundamentals and technological advances to physical implementations
- Devotes special attention to core advances in interdisciplinary research and various applications
- Integrates theories and technologies from computer science, biology, and mathematics
- > Rapid review and publication of articles

The Journal of Membrane Computing (JMC) provides a forum for developing and nurturing an international community of scholars and practitioners who are interested in all aspects of membrane computing: theories, interdisciplinary areas, applications, and implementations. JMC welcomes high-quality submissions that contribute to the full range of membrane computing research, from cell-like P systems, tissue P systems, spiking neural P systems, and other types of P systems, to membrane algorithms, computational complexity, interdisciplinary research combining membrane computing and evolutionary computing and neural networks, to applications like optimization and biosystem modeling, and membrane computing implementations with nanotechnology. This uniquely broad range facilitates the cross-fertilization of ideas between biological and technological studies, and helps to spur on the advancement of an interdisciplinary community that is interested in biologically inspired computational intelligence. Accordingly, the Journal of Membrane Computing editorial board represents experts in a range of fields, including theoretical computer science, engineering, mathematics, and nanotechnology. The journal publishes original, high-quality and previously unpublished research papers, survey and review articles, short communications, and tutorial papers.

Specific areas of interest include, but are not limited to:

Membrane computing; P systems; Membrane systems; Membrane
algorithms; Cellular computing; DNA computing; Molecular computing;
Computational complexity; Evolutionary computing; Neural networks;
Optimization; Biosystem modeling; Unconventional computing; DNA
nanotechnology; Bio-inspired computing; Parallel and distributed computing

### Problems:

	Power $RE$		Power $> RE$		Efficiency			
Class	CS	λ	acc	others	$2^x$ space	precomp	intrinsic	what else?
cell/tissue multiset rew	OK	OK	OK (mcre)	Q5	div/sep	Q7	Q9 (p,i,we)	Q11
S/A	OK	OK	Q2	$Q_5$	div/sep	Q7	Q9 (p,i,we)	Q11
SN P	OK	OK	Q3	$Q_5$	div/bud	OK	Q9 (E)	Q11
numerical	Q1	(expl)	Q4	$Q_5$	Q6 (+,-)	Q8 (+,-)	OK (expl)	Q11 (+,-)
others	Q12	Q12	Q12	Q12	Q12	Q12	Q12	Q12

Problems:

Where lies (is hidden) the power/efficiency?

How to use it (practically)?

Where-how-what else to add?

2018 = Twenty years since the first MC paper

2019 = CMC 20, in Curtea de Argeș, Romania

## Thank you!