

Membrane computing is a relatively new (around 10 years old) area of computer science aiming to abstract computing ideas, paradigms and models from the structure and functioning of the living cells, as well as of other more complex biological entities, like tissues, organs or higher order structures. It belongs, together with older models, like genetic programming, evolutionary algorithms, cellular automata, Lindenmayer systems, or much newer ones, like DNA computing systems, ciliates systems, brane calculi, to a larger class of nature inspired computing models, called *natural computing*, - for an overview of this field see [this](#) . Membrane computing deals with *membrane systems*, also called *P systems*, which are distributed and parallel models processing multisets of objects in a localized manner (evolution, communication and other types of rules are encapsulated into compartments delimited by membranes); the entire system evolves in steps in a non-deterministic and maximally parallel way. Many variants have been introduced and studied, connections with other computing models are established and a broad spectrum of both theoretical investigations and applicative problems have been considered. A [handbook](#) published with Oxford University Press is describing the state-of-the-art development of the field by the end of 2009. Further information about membrane computing can be found at the [P systems web page](#) .

CMC12 aims for continuing the fruitful tradition of 10 previous editions of the International Workshop on Membrane Computing (WMC) and of the Conference on Membrane Computing (CMC), [Jena, Germany, 2009](#) . It is intended to bring together researchers working in membrane computing and related areas and to also host some related workshops. We are pleased to host CMC12 at the University of Paris Est Creteil Val de Marne under the auspices of the European Molecular Computing Consortium.

You are cordially welcome to CMC12, Paris/Fontainebleau, 23-26 August 2011!

The program is now available.

Important dates:

- **Paper submission:** 9 May 2011 16 May 2011 (firm)
- **Paper notification:** 10 June 2011
- **Camera-ready version:** 4 July 2011
- **Conference:** 23-26 August 2011