

MeCBIC2006

**Workshop on Membrane
Computing and Biologically
Inspired Process Calculi**

S. Servolo, Venice, Italy, July 9, 2006

**PRELIMINARY
PROCEEDINGS**

Editors:
Nadia Busi
Claudio Zandron

Table of Contents

Gheorghe Paun

INVITED TALK: Membrane Computing and Brane Calculi (Some Personal Notes)

Bogdan Aman, Gabriel Ciobanu

Translating Mobile Ambients into P Systems

Robert Brijder, Matteo Cavaliere, Agustin Riscos-Nunez,
Grzegorz Rozenberg, Dragos Sburlan

Membrane Systems with Marked Membranes

Matteo Cavaliere, Sean Sedwards

Membrane Systems with Peripheral Proteins: Transport and Evolution

Federica Ciocchetta, Corrado Priami

Biological transactions for quantitative models

Giorgio Delzanno, Roberto Montagna

On Reachability and Spatial Reachability in Fragments of BioAmbients

Daniel Diaz-Pernil, Miguel A. Gutierrez-Naranjo, Mario J. Perez-Jimenez,
Agustin Riscos-Nunez

An Efficient Solution to 3-COL with tissue P Systems

Giuditta Franco, Maurice Margenstern

Universal Computations by Floating Strings

Rudolf Freund, Marion Oswald

Tissue P Systems with Mate and Drip Operations

Julian Gutierrez, Jorge A. Perez, Camilo Rueda, Frank D. Valencia

A Timed Process Calculus for Modeling and Verifying Biological Systems

Cosimo Laneve, Fabien Tarissan
A simple calculus for proteins and cells

Corrado Priami, Alessandro Romanel
The Decidability of the Structural Congruence for Beta-binders

Cristian Versari
Encoding Catalytic P Systems in Pi@

Antonio Vitale, Giancarlo Mauri
Communication via mobile vesicles in Brane Calculi

Verena Wolf
Modeling of Biochemical Reactions by Stochastic Automata Networks

Xian Xu, Xiaoju Dong, Yuxi Fu
A Model in k for DNA Addition