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**CELLULAR COMPUTING
(COMPLEXITY ASPECTS)**

**ESF PESC Exploratory Workshop
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Preface

The present volume contains the papers presented at and emerged from the European Science Foundation PESC Exploratory Workshop *Cellular Computing (Complexity Aspects)*, held in Sevilla, from January 31 to February 2, 2005, in the organization of the Research Group on Natural Computing from the Department of Computer Science and Artificial Intelligence of Sevilla University.

The main goal of the meeting was, besides the presentation of recent results and ideas related to the complexity investigations in membrane computing, to facilitate the interaction of the participants, the cooperative work on subjects in the scope of the workshop – with the mentioning that the complexity was understood in the broad sense, covering both dynamic complexity (computational complexity, time and space as traditionally understood), and descriptonal complexity (size of computing devices able/necessary to solve given computational tasks), of course, with reference to P systems.

The volume was compiled at a short time after the meeting, in the aim to produce a working instrument, part of the interaction started during the stay of authors in Sevilla and meant to facilitate a further interaction among the participants in the workshop. The final version of the papers will be either collected in a special issue of a journal, or presented by the authors themselves to specialized journals or conferences.

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