

Preface

The BIOMAT 2005 International Symposium on Mathematical and Computational Biology, together with the Fifth Brazilian Symposium on Mathematical and Computational Biology, was held in the city of Petrópolis, state of Rio de Janeiro, Brazil, from the 3rd to the 8th December 2005. The atmosphere of the symposium was informal and the approach interdisciplinary, with the contribution of the expertise of fifteen keynote speakers from different fields and backgrounds.

In the proceedings of BIOMAT 2005, there are state of the art research papers in the mathematical modelling of cancer development, malaria and aneurysm development, among others. Models for the immune system and for epidemiological issues are also analyzed and reviewed. Protein structure prediction by optimization and combinatorial techniques (Steiner trees) are explored. Bioinformatics questions, regulation of gene expression, evolution, development, DNA and array modelling, small world networks are other examples of topics covered in the BIOMAT 2005 symposium.

The diversity of topics and the combination of original with review approaches make BIOMAT Symposia important events for graduate students and researchers.

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Finally, on behalf of the Scientific Program Committee and the Editorial Board of the BIOMAT Consortium, we thank all the participants and authors of BIOMAT 2005 for keeping the tradition of the BIOMAT Symposia.

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