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<http://www.eurosim2007.org>



Algebraic Methods and Algorithms in Modeling Discrete Dynamical Systems

SESSION ORGANIZER

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Session Description:

This session will focus on the algebraic methods and algorithms in modeling discrete dynamical systems. In recent years, algebraic techniques are increasingly applied to many real world problems producing dynamic systems. For example, the polynomial algebra via the Gröbner Basis Theory has become a new and important modeling resource to model discrete time series. Algebraic methods have been applied to some of the most pressing and challenging applied problems facing us, such as the understanding of gene networks.

This special session aims to bring together researchers who apply group theory, ring theory, algebraic number theory, algebraic geometry, finite field theory, and/or other elements of algebraic theory to solve dynamic system problems. Algorithms developed from algebraic theories are also welcome. Through the presentations we propose to identify common themes and recent developments regarding algebraic approach to solving dynamical system problems. Furthermore, this session will provide participants opportunities to interact and establish research connections with each other.

TOPICS OF INTEREST:

Researchers and practitioners are invited to submit complete original papers dealing with (but not limited to) the following topics in relation with the thematic of the special session:

- Polynomial modeling of discrete time series
- Algebraic methods in bioinformatics
- Gröbner basis techniques in modeling dynamical systems
- Difference equations
- Algebraic algorithms (e.g. Buchberger-Möller Algorithm) in modeling
- Multivariate Polynomial Interpolating

INSTRUCTIONS TO AUTHORS

Authors are requested to provide a full paper according to the instructions:
<http://www.eurosim2007.org/Instructions.html>

DEADLINES

Announcement of a contribution (to facilitate session organization):

20 March 2007 (by E-mail to the session organizer)

Submission of 2 page extended abstract or draft paper:

9 April 2007 (by E-mail to the session organizer)

Acceptance notification after paper review:

30 May 2007

Full paper (camera ready) due to:

30 June 2007 (to the conference server with copy to the session organizer)