NUMERICAL DIFFERENTIAL AND POLYNOMIAL ALGEBRA

Applications of Computer Algebra – ACA2018

Santiago de Compostela, June 18–22, 2018

Overview

The aim of this session is bring together researchers and practitioners working with systems of polynomials and also those working with systems of polynomially nonlinear differential equations. A particular emphasis of our session is on approximate methods for such systems. There have been many recent developments which yield homotopy based methods for determining approximate points on solution components of such systems. The session will also encourage contributions on the much less developed area of approximate differential algebra, fundamentally important in applications to dynamical models. We invite participants in both theory and applications to this session. This session has an overlap with the session Computational Differential and Difference Algebra.

Talks

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Organizers

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For further references see

ACA main page

Conferences on Applications of Computer Algebra

Topics

- Numerical Polynomial Algebra
- Approximate Differential Algebra
- Numerical homotopy methods for witness points of polynomial systems
- Approximate geometric involutive differential systems
- PDAE and DAE and their applications
- Numerical methods for approximate critical points of real polynomial systems

Submissions

If you are interested in presenting a talk, please email an abstract to either one of the organizers. Please use LaTeX template for your abstract that is available at the conference website. Each presentation including QA is 30 minutes. The abstract submission deadline is April 14, 2018; early submissions are appreciated. More than one abstract may be submitted.