



Contribution ID: 58

Type: not specified

## Usage Power Geometry and Normal Form Methods in simulation of degenerated nonlinear ODEs study

*Thursday, 6 July 2017 11:00 (30 minutes)*

The report describes power transformations of degenerate autonomous polynomial systems of ordinary differential equations which reduce such systems to a set of non-degenerate systems. The original problem is separated in a number of partial nilpotent tasks.

There is an example of building exact first integrals of motion of a degenerate planar system in a closed form as functions of system parameters.

Joint work with Profs. Alexander Bruno and Valery Romanovski

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**Session Classification:** Plenary