Thematic Session

Session title: Global existence versus blowup in nonlinear parabolic systems

Organizers:

Piotr Biler, University of Wrocław, Piotr.Biler@math.uni.wroc.pl Grzegorz Karch, University of Wrocław, Grzegorz.Karch@math.uni.wroc.pl Michael Winkler, University Paderborn, michael.winkler@math.uni-paderborn.de Description of the topic:

The session will be an occasion to discuss recent results in the analysis of partial differential, as well as integro-differential, parabolic type systems arising in applications, in particular in modelization of chemotaxis and more general diffusion-transport-reaction systems. Two aspects of qualitative behaviour of solutions to those systems will be studied in detail: global-in-time existence, and formation of singularities, with a typical example of finite time blowup of solutions.

2011 Mathematic Subject Classification:

35B40, 35B44, 35K55, 35Q