2009/10 EPSRC Symposium on the Mathematics of Complexity Science and Systems Biology

Workshop on Game Theory for Finance, Social and Biological Sciences (GAM) 14-17 April 2010

(partly sponsored by the Marie Curie Research Training Network CODY)

Organisers: VN Kolokoltsov, W McEneaney (San Diego), G Olsder (Delft)

The impact of complexity science in economics and social sciences is deeply connected with the development of game theory. The workshop will aim at discussing the development of general basic modern techniques illustrated by their application to economics (e.g. finances), social sciences (e.g. social behaviour, crime prevention, fight for scarce resources), evolutionary biology. Game theory aims at the analysis of the interaction of (possibly large number of) beings with individual characteristics. It is a popular area of research combining nontrivial mathematical methods with various applications. For instance, recently lots of attention was given to many classes of problems in dynamic games under partial information. Also under development are numerical methods for high-dimensional games: there is an increasing focus on this arena as recent theory is leading to solution methods for problems which were heretofore quite intractable. In the interdisciplinary aspect worthy of further exploitation are the connections with dynamic systems via replicator dynamics, with probability (measure-valued processes) and statistical mechanics (kinetic equation, non-equilibrium behaviour).

Registration for the workshop is free and is now open on the following page: http://www2.warwick.ac.uk/fac/sci/maths/research/events/2009-2010/symposium/gamwks

Those wishing to contribute a talk or a poster are invited to contact one of the organisers via emails: v.kolokoltsov@warwick.ac.uk wmcenean@ucsd.edu G.J.Olsder@tudelft.nl

Confirmed Invited speakers

Steven Alpern (LSE, London)

Martino Bardi (Universita di Padova)

Pierre Bernhard (UNSA, France)

Jonathan Cave (Warwick)

Maurizio Falcone (Universita di Roma Sapienza)

David Gill (Southampton)

Sergiu Hart (Jerusalem)

George Mailath (Pennsylvania)

Jeff Shamma (Georgie Institute of Technology)

Myrna Wooders (Vanderbilt)

Tibor Antal (Harvard)

Tamer Basar (Illinois, Beckman IAS)

Kenneth Binmore (UCL, London)

Constantinos Daskalakis (MIT)

Sayantan Ghosal (Warwick)

Paul Goldberg (Liverpool)

Onésimo Hernández-Lerma (Cinvestav., Mexico)

Leon Petrosyan (St Petersburg)

Krzysztof Szajowski (Wroclaw)

George Zaccour (HEC Montreal)

