NETWORK DYNAMICS AND SYNCHRONIZATION

University of Manchester

Sponsored by: The London Mathematical Society & CICADA

Monday 17th May (Talks in G107, Alan Turing Building)

9.30: Registration and coffee (Atrium)

10.45 Welcome (David Broomhead, Director of CICADA)

11.00 Professor David Broomhead, University of Manchester
Time stealing – making theft rigorous

12.00 Professor Manuela Aguiar, Porto University
The patterns of synchrony of a coupled cell network

13.00 Lunch (Atrium)

14.00 Dr Hiroko Kamei, University of Dundee
Synchrony-breaking bifurcation analysis using lattice of balanced colourings

14.40 Professor Peter Ashwin, University of Exeter
Clustering dynamics for coupled oscillators - from networks to odes and back again

15.40 Tea and Coffee

16.00 Professor Mike Field, University of Houston
Dynamics, inflation and equivalence of networks of coupled dynamical systems

17.00 End

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Tuesday 18th May (Talks in G107, Alan Turing Building)

9.00 Professor David Arrowsmith, Queen Mary University of London
Infrastructure networks - data, statics and dynamics

10.00 Professor Natasa Przulj, Imperial College London
Network topology uncovers function, disease, and phylogeny
11.00 Coffee

11.30 Professor Paul Glendinning, University of Manchester
**Pairing off in dynamic networks**

12.30 Lunch (Chinese Buffet)

14.00 Ms Nikita Agarwal, University of Houston
**Strongly Connected Inflation of Coupled Cell Networks**

14.40 Dr Gerold Baier
**The role of synchronisation and spatial coupling in epileptic EEG**

15.20 Tea and coffee

16.00 Professor Celso Grebogi, University of Aberdeen
**Evolutionary game theory and synchronization in spatially extended ecosystems**

18.00 Buffet and drinks (Conference dinner)

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**Wednesday 19th May (Talks in Frank Adams Room, Alan Turing Building)**

9.00 Dr Mark Muldoon, University of Manchester
**Interactions among oscillatory pathways in NF-κappa B signaling network**

10.00 Professor Peter Grindrod, University of Reading
**Social networks: evolving graphs with memory dependent edges**

11.00 Coffee

11.30 Mr Özkan Karabacak, University of Exeter
**Ratcheting coupled oscillators**

12.30 Lunch (free choice)

14.00 Dr Marco Thiel, University of Aberdeen (and applied seminar)
**Synchronisation, networks and recurrences**

15.00 End