



Dynamics of Coupled Oscillators: 40 years of the Kuramoto Model

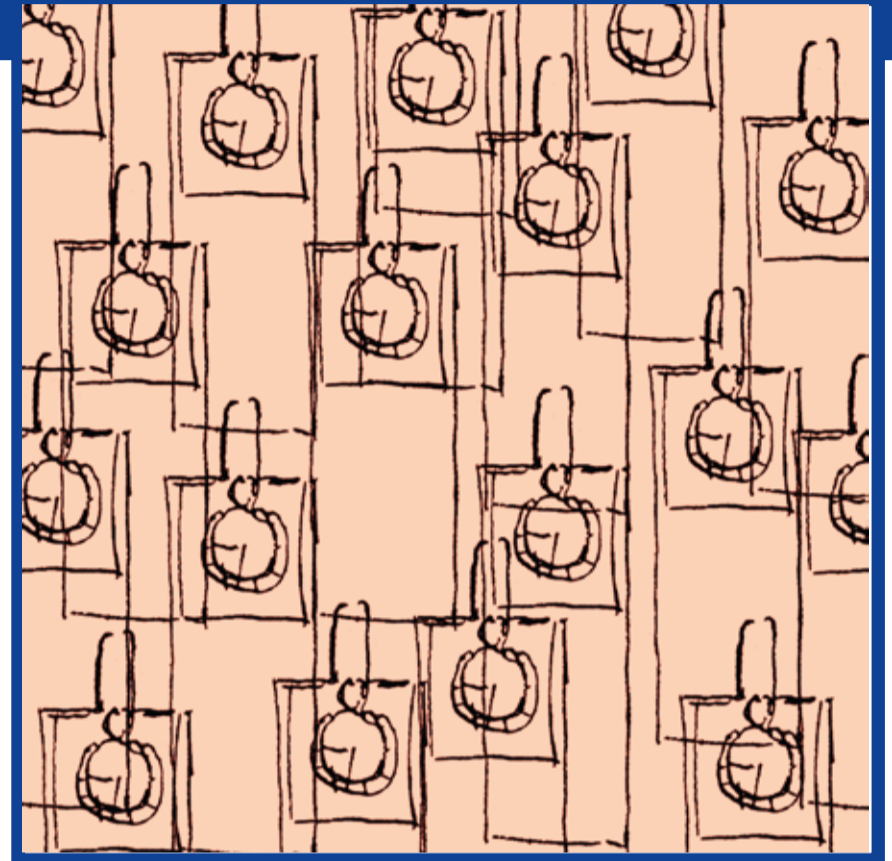
International Workshop 27 - 31 July 2015

40 years ago Yoshiki Kuramoto developed a solvable model describing synchronization transition in an oscillator ensemble. His seminal work initiated a broad field of research, with numerous applications ranging from physics to neuroscience.

The workshop will discuss the state of the art in understanding the dynamics of coupled oscillators, including novel concepts such as chimeras, partial synchrony, and complexity reduction. Advances in theory and experiments will be addressed by physicists, mathematicians, and applied scientists.

Topics include

- Dynamics of oscillator networks
- Synchronization transitions
- Phase reduction and collective variables
- Chimeras and partially synchronous states
- Neural dynamics and other applications



Invited speakers

(to be confirmed*)

T. Antonsen* (USA)
 P. Ashwin (UK)
 E. Barreto (USA)
 H. Chaté (FR)
 H. Chiba (JP)
 P. Colet (ES)
 A. Daffertshofer (NL)
 H. Daido* (JP)
 D. Hansel (FR)
 I. Kiss (USA)
 H. Kori (JP)
 Y. Kuramoto* (JP)
 C. Laing* (NZ)
 Y. Maistrenko (UA)
 E. Martens (DK)
 R. Mirollo (USA)
 H. Nakao (JP)
 O. Omel'chenko (DE)
 E. Ott (USA)
 D. Pazo (ES)

J. Restrepo (USA)
 S. Ruffo (IT)
 L. Schimansky-Geier (DE)
 K. Showalter (USA)
 P. So (USA)
 A. Stefanovska (UK)
 S. Strogatz (USA)
 M. Timme (DE)
 A. Torcini (IT)
 K. Wiesenfeld* (USA)

Scientific coordinators

Arkady Pikovsky
 Potsdam, DE

Antonio Politi
 Aberdeen, UK

Michael Rosenblum
 Potsdam, DE

Organisation

Maria Pätzold, MPIPKS

Applications received before 30 March 2015 are considered preferentially.

Applications are welcome and should be made by using the application form on the workshop's web page. The number of attendees is limited. The registration fee for the international workshop is 120 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses. Please note that childcare is available upon request.

For further information please contact:

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