Wednesday, 26 May 2010

17:00 – 21:00  Registration
from 18:30    Buffet Supper / Informal get together

Thursday, 27 May 2010

07:45  BREAKFAST
08:30 – 08:45  J. Kurths  Welcome and Introduction
08:45 – 09:00  E. Dreisigacker  About the Wilhelm and Else Heraeus Foundation
09:00 – 09:45  S. Havlin  Robustness of interdependent networks
09:45 – 10:30  E. Ott  Emergent behavior in large systems of coupled phase oscillators
10:30 – 11:00  COFFEE BREAK
11:00 – 11:45  C. J. Stam  Disruption of synchronization processes in neuropsychiatric diseases: A complex brain networks perspective
11:45 – 12:15  S. Achard  Functional connectivity of the brain with wavelets
12:15  Conference photo (in the front of the Physikzentrum)
12:30  LUNCH
Thursday, 27 May 2010

14:00 – 14:45  M. Ghil  Boolean delay equations: A simple way of looking at complex systems
14:45 – 15:00  J. F. Donges On the backbone of climate networks
15:00 – 15:30  K. Schindler Synchronization phenomena in human epileptic brain networks
15:30 – 16:00  R. G. Andrzejak Detecting directional couplings from time-continuous and event-related recordings
16:00 – 17:00  Poster session I + COFFEE BREAK
17:00 – 17:30  A. Levermann Abrupt monsoon failure
17:30 – 17:45  C. Masoller Inferring the climate complex network via ordinal patterns and symbolic dynamics
17:45 – 18:00  P. Read Synchronization phenomena in the Earth’s climate on quasi-biennial and intraseasonal timescales from measurements of zonal wind and atmospheric angular momentum
18:00 – 18:15  B. Gluckman Active Probing for network topology - an experimentalists approach for neural systems
18:15 – 19:00  V. Belykh Synchronization in asymmetrical networks: Rigorous results
19:00  DINNER

Followed by a social evening at the invitation of the Wilhelm und Else Heraeus-Stiftung in the “Bürgerstube” at the Physikzentrum
Program

Friday, 28 May 2010

08:00               BREAKFAST

09:00 – 09:45    M. Timme  Challenges in network dynamics: From neural synchrony to chaos control for robots

09:45 – 10:30    J. Suykens  Kernel spectral clustering for complex networks data

10:30 – 11:00    COFFEE BREAK

11:00 – 11:30    N. Marwan  Complex network approach for recurrence analysis of time series

11:30 – 12:00    A. Hense  Network analysis in climate physics: Application and interpretation

12:00 – 12:45    K. Fraedrich  Time and space climate bridges: Long-term memory and teleconnections

12:45 – 13:00    D. Newman  Characterization of climate using Hurst exponent and Renyi entropy techniques

13:00            LUNCH
Friday, 28 May 2010

14:30 – 15:15  H. Nijmeier  The electronic brain: Does it synchronize?
15:15 – 15:30  S. Bialonski  Indications of small-world-ness of interaction networks from natural dynamical systems: reliable or not?
15:30 – 16:15  G. Hu  Self-sustained oscillations in complex excitable networks
16:15 – 16:30  P. Ashwin  Design of cluster dynamics for coupled oscillator systems
16:30 – 17:30  Poster session II + COFFEE BREAK
17:30 – 17:45  R. Wackerbauer  Transient and asymptotic behavior in a network model for the ice-albedo feedback
17:45 – 18:30  V. Nekorkin  Sequential activity modes in an ensemble of synaptically coupled Hodgkin-Huxley-type neurons
18:30 – 18:45  G. Zamora-López  Functional integration and segregation in corticocortical networks
18:45 – 19:00  M. Palus  Complex networks from multivariate time series
19:00 – 19:30  B. Schelter  Direct or indirect: Interactions in oscillatory networks with multiple time scales
19:30  DINNER
Saturday, 29 May 2010

08:00        BREAKFAST

09:00 – 09:45  E. Schöll  Controlling synchrony by delay coupling in complex networks

09:45 – 10:15  U. Feudel  Uncertain destination dynamics: Multistability and synchronization

10:15 – 10:45  A. Rothkegel  Recurrent episodes of synchrony in complex networks of puls-coupled neurons

10:45 – 11:15  COFFEE BREAK

11:15 – 11:30  G. Nolte  Nonlinear measures of brain connectivity robust to artefacts of volume conduction

11:30 – 11:45  D. Kugiumtzis  Coupling detection from multivariate embedding

11:45 – 12:30  A. Diaz-Guilera  Synchronization in networks of mobile oscillators

12:30        K. Lehnertz  Best poster prizes ceremony + Closing remarks

12:45        LUNCH

End of the seminar and departure