



Saratov State University

Saratov

Hotel "Volzhskie Dali"

For application click here!

Registration Form (visa information)

Proceedings

Travel information

Program of the SYNCHRO-2002



Poster Session of the SYNCHRO-2002

**Saratov State University
Scientific and Educational Center on
Nonlinear Dynamics and Biophysics
Nonlinear Dynamics Laboratory**

**Workshop
Synchronization of Chaotic
and Stochastic Oscillations.
Applications in Physics,
Biology and Medicine
(SYNCHRO-2002)**

**September 22-28,2002
Hotel "Volzhskie Dali", Saratov, Russia**

Chairman: Vadim S. Anishchenko

**Scientific coordinators:
Alexander Neiman Arkady Pikovsky, Lutz Schimansky-Geier,**

Saratov State University organizes a specialized international workshop aimed at discussing fundamental theoretical and applied problems of synchronization of complex oscillations. The Workshop will be supported by the CRDF, DFG (SFB 555 "Complex Nonlinear Processes"), the Russian Foundation of Basic Research and the Alexander von Humboldt Foundation.

Confirmed invited speakers

Vladimir Belykh		Sergey Kuznetsov	
Stefano Boccaletti	Ricardo Lima	Jose	
Hans Braun	Astero	Mateos	Vladimir Shalfeev
Werner Ebeling	Provata	Peter McClintock	Leonid Shilnikov
Harald Engel	Martin Hasler	Vladimir Nekorkin	Peter Tass
Jan	Bernardo Spagnolo	Grigory Osipov	Michael
	Jack Hudson		
	Tomasz Kapitaniak		

Freund Jordi Garcia- Ojalvo	Yury Klimontovich	Ulrich Parlitz Michael Rosenblum	Zaks
--------------------------------------	----------------------	---	------

The Workshop will be held in a comfortable hotel which is located in a beautiful and picturesque place at the Volga river and is not far from Saratov City. The total number of participants is limited up to 60 scientists. The participation of PhD students, young scientists and PhDs is welcome. The workshop program will include 30 minutes talks of the invited speakers, several 20 minutes oral contributions and poster sessions.

Living expenses (including accommodation and meals) are \$45 per day in a single room and \$30 per day in a double room. The registration fee is \$100. A partial financial support is possible on a special request.

We expect most of the participants to arrive on Sunday, September 22, and depart on Saturday, September 28. The Workshop will start on Monday, September 23, at 9 am and end Friday, September 27.

Poster Session on September 23, 2002

1. **Olga Sosnovtseva** (Russia) Synchronization phenomena in nephron–nephron interaction
2. **Alexey Pavlov** (Russia) Multiscality in the dynamics of coupled chaotic systems
3. **Alexey Shabunin, Alexander Efimov** (Russia) Chaotic dynamics of chemical reactions in low dimens
4. **Igor Sataev** (Russia) Period doubling at the edge of Arnold tongue and other examples of the uni
5. **Alexei Jalnine** (Russia) Intermittent Transitions in the Quasiperiodically Forced Maps
6. **Alexei Jalnine** (Russia) Characterization of the Parameter–Mismatching and Noise Effect on Weak Synchronization
7. **Anna Ivanova** (Russia) Synchronization and clusterization in a system of globally coupled logistic maps with linear and quadratic coupling
8. **Olga Isaeva** (Russia) Mandelbrot set as a domain of generalized synchronization of coupled period–doubling systems
9. **Julia Sedova** (Russia) Noise effect on two period–doubling systems with unidirectional coupling
10. **Ludmila Turukina** (Russia) Comparison of dynamics of kicked oscillators and kicked self–oscillating systems
11. **Sergey Milovanov** (Russia) Synchronization in a system with the cycle–collision bifurcation
12. **Oksana Glushkovskaya–Semyachkina** (Russia) Index of normalized entropy as a potential tool for study of the cardiovascular physiological and
13. **Tatjana Yakusheva** (Russia) Traditional and nonlinear dynamics methods applied to investigate c
14. **Oksana Klimova, Mariya Semyonova** (Russia) Normalized entropy applied to the study of gender ho
15. **Vera Afanas'eva** (Russia) Deterministic Chaos: a Philosophical Analysis
16. **Alexander Lazerson** (Russia) Dynamical Chaos in Electron Devices. How it Works.
17. **Michael Belyaev** (Russia) Quantum Chaos in Simple Systems
18. **Irina Rempen** (Russia) Influence of external signal on the chaotic dynamics of electron beam ir
19. **Elena Mchedlova** (Russia) Synchronization and chaotic patterns in the coupled map lattice with additional nonlocal links
20. **Alexander Prokhorov** (Russia) Peculiarities of synchronization and complex dynamics in the non
21. **Kirill Andreev** (Russia) Peculiarities of synchronization in neuron ensembles, simulated by piec
22. **Artem Balyakin** (Russia) Complex Dynamics of Non–Linear Distributed Resonators
23. **Dmitry Klokov** (Russia) Experimental Research of the Complex Dynamics of Multiple–Cavity Klystron Oscillator with a Delayed Feedback Driven by External Signal
24. **Dmitry Smirnov** (Russia) Determination of the direction of coupling in a system of two coupled
25. **Maxim Bodrov** (Russia) Identity, coupling, synchronization (in application to the analysis of hu recordings)
26. **T. Vadivasova, A. Kopeikyn, D. Matyushkin** (Russia) Self–organisation effects in a chain at sto

Poster Session on September 24, 2002

1. **Eireen Neumann** (Germany) Quasiperiodically driven Josephson Junctions
2. **Karsten Peters** (Germany) Synchronization of chaotic hybrid systems
3. **Immo Wedekind** (Germany) Experimental synchronization of external cavity semiconductor lasers
4. **Georgios–Artemios Tsekouras** (Greece) Spontaneous formation of oscillators in lattice dynamics
5. **Wonsuhk Uhm** (S.Korea) Synchronous state of phase on symmetrically coupled torus maps
6. **Nata Janson** (UK) Synchronization breakdown and coherence resonance
7. **Vjacheslav Medvedev** (Russia) Numerical research of stochastic dynamics of auto–oscillating systems with an asymmetrical cubic nonlinear response
8. **Sergey Starkov** (Russia) Communications based on UPO of chaotic attractors
9. **Yury Andreev** (Russia) Information approach to the separation of chaotic signals
10. **Gennady Kasyan** (Russia) Chaotic synchronization of two–dimensional maps. The information approach
11. **A.A. Dmitriev** (Russia) Design of chaotic sequences carrying useful information
12. **Elena Efremova** (Russia) Power spectrum control in the model of one–transistor chaotic generatc

13. **Alexey Safonov** (Russia) Relaxation time characteristics in the systems with zero and non-zero stationary flow
14. **Alexander Dubkov** (Russia) Theoretical calculation of effective diffusion constant in fluctuati
15. **Evgeniy Pankratov, Dr. Alexander Dubkov** (Russia) Control of impurity diffusion rate in homogeneous medium by modulation of diffusion coefficient
16. **Alexander Kraskov** (Germany) Localization of the epileptic focus using phase synchronizaton based on wavelet transform
17. **Grigory Bordyugov**(Germany) Pulse Dynamics in Excitable Media with Complex Local Behavior
18. **Alexander Silchenko** (UK) Fluctuational transition through a fractal basin boundary
19. **Boris Shulgin** (UK) Bifurcation analysis of phase bistability in circadian clocks forced by ske
20. **Semen Zhitskey**(Russia) Synchronization and cluster formation during phase-transient processes oscillators
21. **Igor Khovanov** (Russia) Phase synchronization in regular and chaotic systems in the presence of
22. **Anton Fomin** (Russia)Development of noise-induced spatial structures in excitable media
23. **Dmitry Setsinsky** (Russia) Noise-induced coherence in small neuron networks
24. **Alexander Nekrasov** (Russia) Phase multistability of self-modulated oscillations
25. **Dmitry Postnov** (Russia) Phase Dynamics Complexity in Coupled Bursters