

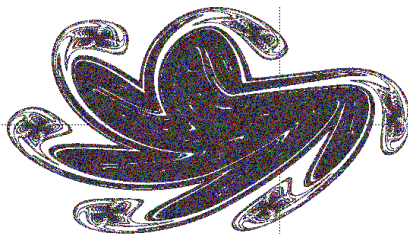
Riga Technical University, Institute of Mechanics RTU  
Latvian Academy of Science, Latvian Council of Science  
Latvian National Committee for Mechanics

International Workshop

# How to Find Rare Attractors in Nonlinear Dynamical Systems by the Method of Complete Bifurcation Groups (MCBG)

Rīga-Jūrmala, Latvia, May16, 2011

## Workshop Program



IEGULDĪJUMS TAVĀ NĀKOTNĒ



PIRMAIS SAUKUMS

Nr. 2DP/2.1.1.2.0/10/APIA/VIAA/003

## *Location and Transport*

### **The venue of the Workshop is the Hotel “Lielupe”- Bulduru Avenue 64/68, Jurmala, Latvia.**

The Symposium will take place in 15 km from Riga – in Jurmala, the largest resort city in the Baltic States which is well-known for its natural treasures: the mild climate, sea, healthy air, curative mud and mineral water.

You can get to the Hotel “Lielupe” by train, by minibus, by taxi or by private transport.

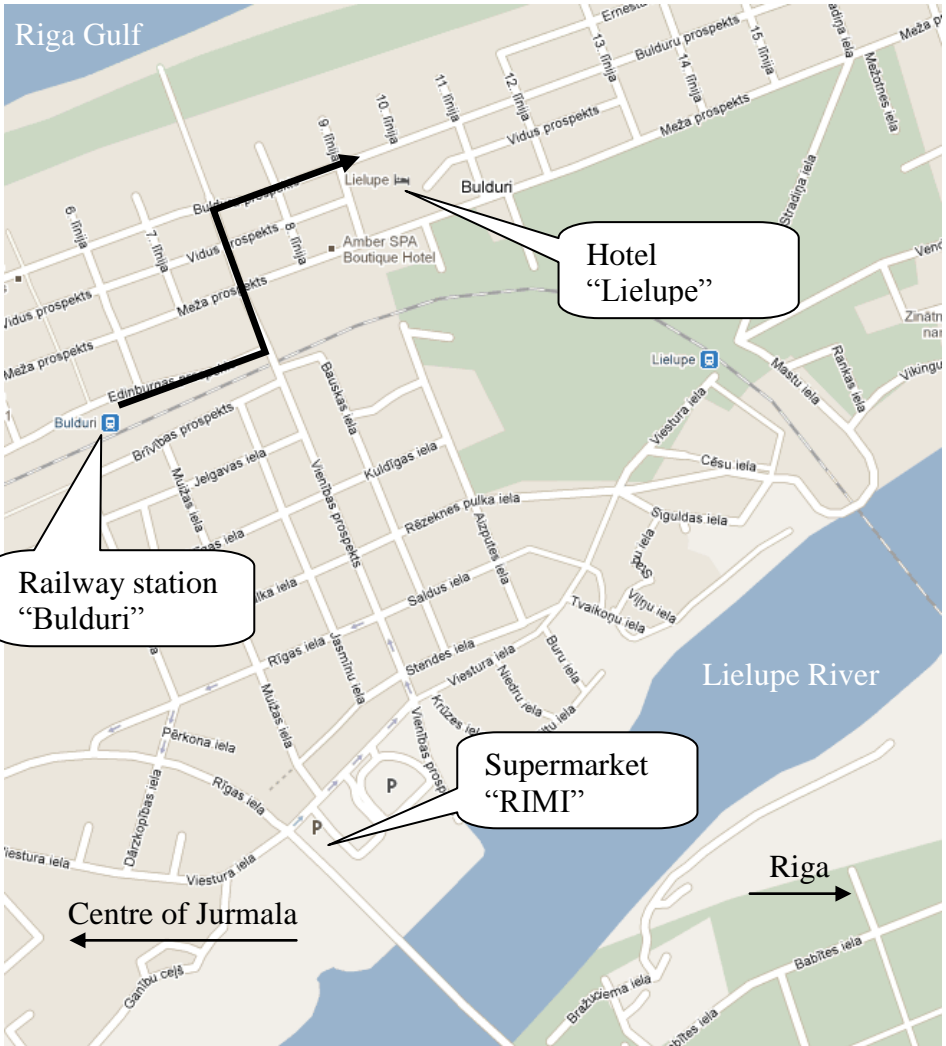
The **suburban trains** depart from Riga Central train station almost every 20 minutes and have such routes as "Riga - Dubulti", "Riga - Sloka", "Riga - Ķemeris" and "Riga - Tukums". Your destination is “Bulduri”. Distance from the railway station to the hotel is about 1 km. The tickets cost approximately 0.60-0.80 LVL.

The **minibuses** depart from Riga from the Central minibus station opposite Riga Central train station. They travel to Jūrmala every 5 minutes to destinations - Jaunķemeris, Sloka and Dubulti. The tickets cost 1.10 - 1.50 LVL and can be obtained from the driver. It is better to ask the driver to stop well in advance, near Hotel “Lielupe”.

The best way to get to the Hotel “Lielupe” from Riga International Airport is the “Baltic **Taxi**”: boarding a taxi/ hiring a taxi – 1.00 LVL; mileage rate per km - 0.50 LVL/km (from Airport to Lielupe Hotel about 20 km); customer waiting - 6.00 LVL/per hour.

When entering Jurmala by **private transport** you have to pay 1.00 LVL.

1 EUR = 0.7 LVL



*Contact Number – Enquiries and Emergencies*

Please contact the Workshop organizers on  
+371 26042097 (Vladislav Yevstignejev) or  
+371 29346073 (Olga Kononova).

## *Local Organizing Committee*

Prof. Mikhail V. Zakrzhevsky

Dr. Vladislav Yevstignejev

Assoc. Prof. Olga Kononova

## *Workshop Program*

Monday, May 16, 2011

**12.30 – 14.00 Registration**

**14.00 – 14.10 Opening:** Chair Prof. M. Zakrzhevsky

**Workshop** “How to Find Rare Attractors in Nonlinear Dynamical Systems by the Method of Complete Bifurcation Groups (MCBG)”

**14.10 – 15.00 Prof. Albert C.J. Luo** (Edwardsville, USA) Singularity and Flow Passability in Discontinuous Dynamical Systems

**15.00 – 15.30 Coffee break**

**15.30 – 16.30 Prof. M. Zakrzhevsky** (Riga, Latvia) Numerical and Analytical Methods and Approaches for Finding Rare Attractors in Nonlinear Dynamics and Chaos

**16.30 – 17.00 MSc A. Klokov, Dr. V. Yevstignejev** (Riga, Latvia) Rare Attractors and Chaos in the Rigid Body Pendulum with Linear Spring and Several Equilibrium Positions

**17.00 – 17.30 Dr. R. Smirnova, Dr. I. Schukin** (Daugavpils, Latvia) Rare Attractors and Chaos in the Driven Damped Pendulum Systems with Non-Monotonic Nonlinear Dissipation

**17.30 – 18.00 MSc D. Pikulin, Dr. V. Frolov** (Riga, Latvia) The Method of Complete Bifurcation Groups for Discrete Systems

**18.00 – 18.30 Discussion** “Methods and Approaches of Rare Dynamical Phenomena and Open Problems”

**18.30 – 19.30 Individual Consultations** about the Problems of Rare Attractors