# First Announcement

Boris Chirikov, a pioneer of dynamical chaos

conference in memory of Boris Chirikov on his 90th birthday

June 11-15, 2018
Centro International de Ciencias A. C.
Cuernavaca, Morelos

On June 6, 2018 Boris Chirikov would have turned 90. His name is known to everyone who deals with classical and quantum systems manifesting chaotic behavior, and beyond. Chirikov was one of the main contributors to the rise of non-linear dynamics: in 1965 he applied his approach to the Fermi-Pasta-Ulam (FPU) paradox and explained it analytically. His analytical predictions were later confirmed numerically. Many important results of Chirikov and his group in that period followed: predicted the chaos border in the Fermi-acceleration model (1964), weak Arnold diffusion in nonlinear maps (1969-1975), chaotic properties of non-linear maps in the regime of strong chaos (1969), the emergence of strange attractors in 2D and 4D dissipative maps (1973-1974), non-integrability of classical Yang-Mills field (1981), chaotic dynamics of the Halley comet (1989), and many more.
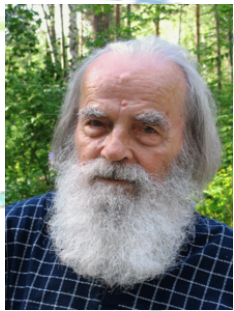
Boris´s name is nowadays closely associated with the "*standard map*" that serves as a paradigm in the theory of dynamical chaos. The role of this map in non-linear physics equals that played by the linear oscillator in linear physics. In 1977, Chirikov turned attention to quantum dynamics by introducing the quantum version of this map, now known as the "*kicked rotor*". The early studies of this model by Chirikov and his co-workers resulted in the discovery of the important phenomenon of dynamical localization of quantum chaos. Later, the effect of such localization was observed in experiments with hydrogen and Rydberg atoms in a monochromatic microwave field, and with cold atoms and Bose-Einstein condensates in optical lattices. In the theory of quantum systems with complex behavior, the kicked rotor is considered as the basic model demonstrating all essential properties of quantum chaos.

Main topics:
- **Deterministic chaos in classical physics**
- **Quantum-Classical correspondence for chaotic systems**
- **Quantum chaos-Random Matrix Theory correspondence**
- **Dynamical localization**
- **Kicked periodic systems**
- **Chaotic billiards**
- **Thermalization in closed systems of interacting particles**
- **Experimental realization of quantum chaotic systems**

There will be invited talks, contributed talks and poster sessions. Parallel sessions will be avoided, if possible.

Organizing committee:

Leonid Bunimovich, Georgia Tech (USA)
Giulio Casati, University of Insubria (Italy)
Felix Izrailev, BUAP (Mexico)
Tomaz Prosen, University of Ljubljana (Ljubljana)
Thomas H. Seligman, ICF-UNAM (Mexico)
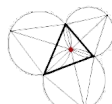**Manan Vyas, ICF-UNAM (Mexico)**

Deadline: Contributed talks: April 30, 2018, Posters: May 15, 2018

Register by sending an email to: **chirikov.cicc.2018@gmail.com**

Registration fee: 200 US$ (students 100 US$) or its equivalent in Mexican pesos or euros*

Webpage: **http://www.cicc.unam.mx/activities/2018/chirikov/conference.html**

*The fee can be paid in cash or traveler cheques upon arrival. Credit cards and personal checks can not be accepted. If you need to make a bank transfer, please send us an email. If your situation requires a waiver of this fee, please contact the organizers.