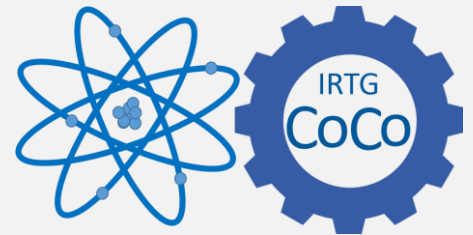


IRTG-Seminar



Dr. Rashid Nazmitdinov

Universitat de les Illes Balears, Palma de Mallorca & Joint Institute for Nuclear Research, Dubna

“Symmetry effects in mesoscopic systems”

We discuss symmetry effects produced by interplay of regular and chaotic dynamics of particles confined by effective potentials of various shapes in finite quantum systems. It is demonstrated that dynamical symmetries emerging from this interplay in classical and quantum systems are related to existence of conserved quantities of the dynamics and integrability. Important role of these symmetries are illustrated on a broad class of mesoscopic systems that include octupole deformed many body systems such as nuclei and clusters, and quantum dots in a magnetic field (see for a review [1]).

References

[1] J.L. Birman, R.G. Nazmitdinov, and V.I. Yukalov, Physics Reports 526, 1 (2013).

**Tuesday, December 13th, 2016, 4:00 p.m., HS II,
Physics High Rise, Hermann-Herder-Str. 3**

Albert-Ludwigs-Universität Freiburg

Contact: Anne Hillenbach
IRTG / Cold Controlled Ensembles in Physics and Chemistry
Phone +49 761 203 97666
E-mail : anne.hillenbach@physik.uni-freiburg.de