ICTP DIPLOMA PROGRAMME IN MATHEMATICS 2013-14

Differential Equations and Dynamical Systems II (MTH-ODE II)
(10 lectures : 15 hrs)

1) Contraction Maps and Local Linearisation of Attracting fixed points. Proof of the Grobman-Hartman Theorem in the special case of contracting maps.

2) Circle rotations and minimal homeomorphisms

3) Symbolic Dynamics. Shift map. The Tent map. Symbolic coding.

4) Full branch maps. Expansion of real numbers in various bases. Normal numbers.