

SCMS Seminar



RECENTS ADVANCES ON RENORMALISATION FOR MULTIMODAL MAPS

Prof. Daniel Smania
ICMC-USP, Brazil

Lecture 1

Time: 2:00-4:00 pm., Thursday, Nov. 2, 2017

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Lecture 2

Time: 2:00-4:00 pm., Friday, Nov. 3, 2017

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Lecture 3

Time: 2:00-4:00 pm., Tuesday, Nov. 8, 2017

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Abstract: We describe recent advances on renormalisation theory. In particular we prove that the omega-limit set of the renormalisation operator with bounded combinatorics is a hyperbolic set. As a consequence, we obtain results on the typical behaviour of multimodal maps in generic families of multimodal maps

$$k_3 = hf\left(x_{i-1} + \frac{h}{2}, y_{i-1} + \frac{k_2^{(i-1)}}{2}\right)$$
$$b_i - \left(\sum a_{ij} x_j^{(k)} + \sum a_{ij} x_j^{(k)}\right)$$
$$\Delta y_i = \int_{x_i}^{x_{i+1}} \frac{a_{ii}}{y} dx$$
$$\int_{x_k}^{x_{k+1}} f(x, y) dx = \int_{x_k}^{x_{k+1}} y' dx = y(x)$$
$$-\sqrt{(y_n + 0.5\tau k_1)^2 + (t_n + 0.5\tau)^2}$$