

# SCMS Seminar



## A NEW CONSTRUCTION OF PSEUDO-ANOSOV HOMEOMORPHISMS

**Speaker: John Hubbard**  
**Cornell University**

**Time:** 16:00 - 17:00, Monday, October 22, 2018

**Venue:** Lecture Hall, 2nd Floor, Shanghai Center for Mathematical Sciences

### Abstract:

I have a description of all pseudo-Anosov homeomorphisms that fix singularities and leaves emanating from them) in terms of something we call “ordered block permutations”. It has allowed us to list the first 7000 or so such pseudo Anosov homeomorphisms, showing in particular that only about 10% fail to have totally real dilatations. (Joint with Ahmad Rafiki and Tom Schang)

$$\Delta y_i = \int_{x_i}^{x_{i+1}} y' dx - \left( \sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)} \right)$$
$$\int_{x_k}^{x_{k+1}} f(x, y) dx = \int_{x_k}^{x_{k+1}} y' dx = y(x)$$
$$-\sqrt{(y_n + 0.5\tau k_1)^2 + (t_n + 0.5\tau)^2}$$