

Mathematical Ecology: Theory and Applications (META)

Joint Research Group in the UK - LMS Scheme 3



META WORKSHOP

'Mathematics of Ecological Complexity'

UNIVERSITY OF BIRMINGHAM (UK), 1 September 2016

PROGRAMME

10:00–11:00 Andrew Morozov

Environmental heterogeneity and density-dependent animals' dispersal as key regulators of top-down control in ecosystems with eutrophication

11:00–11:30 Coffee break

11:30–12:00 Valerie Livina

Tipping point analysis of dynamical systems, with applications in geophysics and environmental sciences

12:00–12:30 Daniel Bearup

Population dispersal is well described by diffusion even when some individuals may perform Lévy walks

12:30–14:00 Lunch

14:00–14:30 Edward Codling

Optimal navigation strategies for animal movement: copycat dynamics revisited

14:30–15:15 Presentations by PhD students:

Jack Choules

Ways to compare random walks resulting from different distributions: do we always have to focus on mean equal or variance?

Emily Forbes

Why does agricultural research need mathematical modelling?

Wenxin Zhang

Spatial patterns of interacting stage-structured species with short-distance dispersal

15:15–15:45 Coffee break

15:45–16:45 Stephen Cornell

Invasions, heterogeneity, and the evolution of dispersal

16:45–17:00 General discussion