

## **AGENT-BASED MODELLING** IN THE ASSESSMENT OF ENVIRONMENTAL **RISK WITH APPLICATIONS IN NAVAL** AND MARINE RENEWABLE ENERGY

The past decade has seen marked increases in marine activities that produce loud, far-reaching, noise. A series of high-profile whale strandings raised public awareness in the context of new military SONAR and initiated a number of risk assessment/mitigation research avenues. Marine noise is now an identified risk in marine activities which requires regulation - leading to formal assessment and mitigation duties before the issuing of permits in many countries. The problem is complex - I will discuss the use of agent-based models as a conceptually simple and general approach to such problems. Implementations in the context of military SONAR and marine renewables will be presented, along with recent research into the limitations of these approaches for long-term assessments.

**12 MAIO 2014** 12H30 **AUDITÓRIO 1 ENTRADA LIVRE** 



## **Carl Donovan**

University of St Andrews, School of Mathematics and Statistics, Centre for Research into Ecological and Environmental Modelling (CREEM) National Centre for Ecological Statistics (NCSE) and DMP Statistical Solutions UK Ltd

