

## Resume

Mark Birkin

School of Geography, University of Leeds

I am the Principal Investigator on MoSeS (Modelling and Simulation for e-Social Science), a research node of the National Centre for e-Social Science (NCeSS) which is exploring the capability of computational grids and related technologies to construct large-scale, policy-oriented social simulation models. MoSeS aims to represent demographic structures, activity and behaviour through a combination of microsimulation, spatial interaction modelling and agent-based methods.

I have been involved in two PhD supervisions in agent-based simulations: Alison Heppenstall (Agent-based modelling of the retail petrol market: awarded 2005) and Belinda Wu (hybrid microsimulation and agent models for demographic forecasting: commenced 2005). I am a geographer by profession and by training, and my other interests include microsimulation, spatial interaction modelling, GIS, geodemographics and spatial decision support systems.

I am currently leader of the Centre for Spatial Analysis and Policy, a research cluster with significant critical mass whose interests combine interests in mathematical modelling, spatial analysis and GIS with an appreciation of the value of applied geography and policy evaluation.

### Selected Papers

- Shelton, N., Birkin, M. and Dorling, D. in press. Where not to live, Health and Place.
- Heppenstall, A.J., Evans, A.J., and Birkin, M.H. 2005. A Hybrid Multi-Agent/Spatial Interaction Model System for Petrol Price Setting, *Transactions in GIS*, 9(1), 35-51.
- Birkin, M., Clarke, G. Gibson, P., Dewhurst, R. and Bobby, J. 2005. Reevaluating Funding Mechanisms for Primary Care Trusts: A New Model of Secondary Care Usage Incorporating Lifestyle Data, *Environment and Planning C*, 23, 317-336.
- Heppenstall, A.J., Evans, A.J. and Birkin, M.H. in press. Testing and optimisation of a hybrid multi-agent model for the retail petrol market, *Environment and Planning B*, in press.
- Birkin, M., Clarke, G. and Douglas, L. 2002. Optimising retail mergers and acquisitions geographically, *Progress In Planning*, 58, 4, 229-318
- Birkin, M. and Clarke, G. 1998. GIS, geodemographics and spatial modelling: an example within the UK financial services industry, *Journal of Housing Research*, 9(1), pp87-112.
- Williamson, P., Birkin, M. and Rees, P.H. 1998. The estimation of population microdata using data from small area statistics and samples of anonymised records, *Environment and Planning A*, 30, 785-816.