

MAR05-2004-000728

Abstract for an Invited Paper  
for the MAR05 Meeting of  
the American Physical Society

**Infectious diseases in space and time: noise and nonlinearity in epidemiological dynamics**

BRYAN GRENFELL, University of Cambridge/Penn State

I illustrate the impact of noise and nonlinearity on the spatio-temporal dynamics and evolution of epidemics using mathematical models and analyses of detailed epidemiological data from childhood infections, such as measles.