# Financial Data as an Example of Model Choice

P.L. Davies[1]

[1] Department of mathematics, University Duisburg-Essen, 45117 Essen, Germany

**Keywords:** Financial data, Model choice.

## Abstract

We consider the problem of modeling long-term financial data $y(t), t = 1, \ldots, n$ by a parametric model $P_\theta : \theta \in \Theta \subset R^k$ with the number of parameters $k$ being small. small number of parameters. The approach we take is to decide which features of the data are regarded as relevant and then determining the possible parameter values $\theta$ by requiring that "typical" samples of size $n$ generated under $P_\theta$ reproduce the required features. Discussion is necessary to decide which features are to be given legitimacy and which not. Grounds for including features will be based on probability considerations as well as on substantive knowledge of the data involved. This approach will be contrasted to others where parameter or model choice is based on universal principles such as likelihood.