

# VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

*Zeit:* Donnerstag, 7. Februar 2013, 17:30 Uhr

*Ort:* Raum 109, Gebäude 20.13

*Es spricht:* Dr. Thomas Lidbetter, London School of Economics

*Zum Thema:* **Searching for multiple hidden objects**

*Abstract:* Suppose  $k$  objects are hidden amongst  $n > k$  boxes, each with a designated search cost. A Searcher chooses an ordering of the boxes and opens them one by one, paying the associated search costs until all the objects have been found. We consider this as a zero-sum game between the Searcher who wishes to minimise the total search cost and a malevolent Hider who wishes to maximise it. We give the solution of this game and discuss variations in which the players are allowed to alter their strategies as they go along. We then show how this game can be considered as a specific example of a wider class of search games for multiple objects on a network, and we give the solution of the game for 2-arc-connected networks (networks that cannot be disconnected by removing fewer than 2 arcs).

**Die Vorträge zum Operations Research wenden sich an alle Interessierten!**

Ab 17:00 Uhr ist am Institut für Operations Research (Gebäude 20.13, Raum 104) Gelegenheit zu einem Gespräch mit dem Referenten bei einer Tasse Kaffee gegeben.

Bei Rückfragen wenden Sie sich bitte an:

Prof. Dr. Oliver Stein, Institut für Operations Research.