

THE UNIVERSITY



OF HONG KONG

Department of Mathematics

# Operations Research Group Seminar (ORG)

June 10, 2002 (Monday)

2:30 – 3:30pm

517 Meng Wah Complex, HKU

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Mini-series on Multiple Objective Programming: Second Talk

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*Distance Metric Optimisation: Recent Trends and Advances*

**Dr. Dylan JONES**

Management Mathematics Group, University of Portsmouth, UK

## Abstract

This seminar details the advances and trends that have taken place in the field of distance metric optimisation in recent years. The level and nature of publications in the area is examined. The trend away from isolation and towards integration with other Operational Research techniques is elaborated upon. The interface between distance metric optimisation and meta-heuristic methods is examined, with a small example combining genetic algorithms and compromise programming given. The use of distance metric optimisation techniques in combination with the Analytical Hierarchy Process (AHP) and Data Envelopment Analysis (DEA) is detailed. The concept of using distance metric models for classification and data analysis is examined. Avenues for future research directions are discussed.

**Keywords:** Multiple criteria decision making, multiple objective programming, distance metric optimisation, meta-heuristic methods, analytical hierarchy process.

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**All are welcome**

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For further information, please contact [org@maths.hku.hk](mailto:org@maths.hku.hk) or visit  
<http://hkumath.hku.hk/~org>