

# Committee of Professors in OR (COPIOR)

## OR Journal List May 2011

The COPIOR (Committee of Professors in OR) list of journals ranks journals publishing in the field of Operational Research & Management Science (ORMS). Recognizing that ORMS is a broad field contributing across management, engineering and mathematical science, it aims to replace previous lists, especially the ABS list, with one that is more inclusive and which has been more rigorously produced. The purpose is to provide individual researchers, research administrators, Deans and university managers with guidance as to the 'modal' quality of journals in the field, based on the judgements of UK OR professors. In producing this list we recognize that many of the journals publish papers of a higher quality than the modal rank would suggest, and also of course many that are lower. It is the case that all journal rankings – when used as proxies for the quality of individual papers - have a significant probability of mis-classifying paper quality.

We have chosen to use the RAE/REF quality scale:

**4\*** = Quality that is world-leading in terms of originality, significance and rigour.

**3\*** = Quality that is internationally excellent in terms of originality, significance and rigour but which nonetheless falls short of the highest standards of excellence.

**2\*** = Quality that is recognised internationally in terms of originality, significance and rigour

**1\*** = Quality that is recognised nationally in terms of originality, significance and rigour.

However, a small number of journals were seen as falling between the 4\*/3\* dividing line, with a high recognition of originality but with perhaps more variable standards.

Critical to any ranked list is the process by which it is arrived at. A sub-group of COPIOR chosen to cover different areas of ORMS, none of whom were current journal editors, went through the following steps:

1. A long list establishing a long list of journals to include
2. Boundaries were defined that excluded journals which were predominantly publishing articles in other fields (e.g statistics and probability). This step included examination of the Aims and Objectives of a number of journals. Note that the ABS list in ORMS includes journals which are not in the field, e.g. Journal of the American Statistical Association
3. Statistics were compiled on all the journals based on Web of Science and Google Scholar. They included the citations per paper, the H-Index and the %papers with zero citations as well as the standard deviation of the citations per paper.
4. Preliminary rankings based on these statistics were prepared by the sub-committee members individually.
5. A meeting was held where the summary results were presented and overall rankings were agreed. This was informed both by the sets of statistics and our peer experience of the journals.

6. The COPIOR membership was invited to comment on the preliminary list
7. A small number of journals were changed from the provisional rankings to take into account the full-committee's views
8. A meeting of the full committee examined the list and after considerable discussion agreed the list which is attached.
9. It was also decided to reappraise the list in 12 months time, recognizing the provisional nature of the rankings and that journal reputations occasionally change rapidly or additional information may become available. Other journals not included in this list would be considered in the reappraisal.
10. In addition it was affirmed that the COPIOR list, despite the weaknesses inherent in any journal ranking exercise, reflected the broad views of journal quality of the ORMS community much better than other existing lists.

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| TITLE OF JOURNAL   | ISSN      | RANK |
|--|-----------|------|
| Decision Sciences  | 1540-5915 | 4    |
| European Journal of Operational Research                       | 0377-2217 | 4    |
| IEEE Transactions on Evolutionary Computation                  | 1089-778X | 4    |
| Management Science   | 0025-1909 | 4    |
| Mathematical Programming                                       | 0025-5610 | 4    |
| Mathematics of Operations Research                             | 0364-765X | 4    |
| Operations Research  | 0030-364X | 4    |
| SIAM Journal on Numerical Analysis                             | 0036-1429 | 4    |
| SIAM Journal on Optimization                                   | 1052-6234 | 4    |
| Transportation Research Part B: Methodological                 | 0191-2615 | 4    |
| Transportation Science   | 0041-1655 | 4    |
| Decision Support Systems                                       | 0167-9236 | 3/4  |
| International Journal of Production Economics                  | 0925-5273 | 3/4  |
| Omega: The International Journal of Management Science         | 0305-0483 | 3/4  |
| ACM: Transactions on Modeling and Computer Simulation          | 1049-3301 | 3    |
| Annals of Operations Research                                  | 0254-5330 | 3    |
| COAP: Computational Optimization and Applications              | 0926-6003 | 3    |
| Computers and Industrial Engineering                           | 0360-8352 | 3    |
| Computers and Operations Research                              | 0305-0548 | 3    |
| IEEE Transactions on Engineering Management                    | 0018-9391 | 3    |
| IEEE Systems, Man and Cybernetics - Part A: Systems and Humans | 1083-4427 | 3    |
| INFORMS Journal on Computing                                   | 1091-9856 | 3    |
| International Journal of Forecasting                           | 0169-2070 | 3    |
| Journal of Heuristics  | 1381-1231 | 3    |
| Journal of the Operational Research Society                    | 0160-5682 | 3    |
| Journal of Productivity Analysis                               | 0895-562X | 3    |
| Journal of Scheduling  | 1094-6136 | 3    |
| Manufacturing and Service Operations Management                | 1523-4614 | 3    |
| Reliability Engineering and System Safety                      | 0951-8320 | 3    |
| SIAM Journal on Control and Optimization                       | 0363-0129 | 3    |
| Applied Mathematics and Computation                            | 0096-3003 | 2    |
| Decision Analysis Journal (launched in 2004)                   | 1545-8490 | 2    |

|   |           |   |
|---|-----------|---|
| Discrete Applied Mathematics  | 0166-218X | 2 |
| Group Decision and Negotiation  | 0926-2644 | 2 |
| Health Care Management Science  | 1386-9620 | 2 |
| IMA Journal of Management Mathematics   | 1471-678X | 2 |
| INFORMS Transactions on Education   | 1532-0545 | 2 |
| Interfaces  | 0092-2102 | 2 |
| International Journal of Production Research                                  | 0020-7543 | 2 |
| Journal of Computational and Applied Mathematics                              | 0377-0427 | 2 |
| Journal of Forecasting  | 0277-6693 | 2 |
| Journal of Optimization Theory and Applications                               | 0022-3239 | 2 |
| Mathematical Methods of Operations Research                                   | 1432-2994 | 2 |
| Naval Research Logistics  | 0894-069X | 2 |
| OR Spectrum   | 0171-6468 | 2 |
| Queueing Systems: Theory and Applications                                     | 1572-9443 | 2 |
| Stochastic Processes and their Applications                                   | 0304-4149 | 2 |
| System Dynamics Review  | 0883-7066 | 2 |
| 4OR   | 1619-4500 | 1 |
| Annals of Combinatorics   | 0218-0006 | 1 |
| Applied Mathematics & Optimization  | 0095-4616 | 1 |
| Asia-Pacific Journal of Operational Research                                  | 0217-5959 | 1 |
| Discrete Mathematics  | 0012-365X | 1 |
| INFOR   | 0315-5986 | 1 |
| International Transactions in Operational Research                            | 0969-6016 | 1 |
| Journal of Combinatorial Optimization   | 1382-6905 | 1 |
| Journal of Multi-Criteria Decision Analysis                                   | 1099-1360 | 1 |
| Journal of Simulation (launched in 2006)                                      | 1747-7778 | 1 |
| Operations Research Letters   | 0167-6377 | 1 |
| Optimization  | 0233-1934 | 1 |
| Optimization Methods & Software   | 1055-6788 | 1 |
| OR Insight  | 0953-5543 | 1 |
| Pacific Journal of Optimization   | 1348-9151 | 1 |
| Pesquisa Operacional<br>(Brazilian OR Society journal, publishes in English)  | 0101 7438 | 1 |
| Stochastics: An International Journal of Probability and Stochastic Processes | 1744-2508 | 1 |
| Stochastic Models   | 1532-6349 | 1 |
| Systems Research and Behavioral Science                                       | 1092-7026 | 1 |
| Theory and Decision   | 0040-5833 | 1 |