
Operations research (OR) is a well-established field. OR methods, with the support of computing technologies, are very useful in tackling many real world problems ranging from business optimization, social planning, to military operations. Over the past few years, many new methods and theoretical findings have been obtained. However, there are criticisms and concerns regarding the lack of the real world relevance of many proposed methods.

A real-cases based OR problem refers to a problem based on a specific real case and industrial practice. The objective is to improve the operation of a real case or a collaborating practitioner. In the OR literature, problems are often associated with many assumptions so that the problems yield more “beautiful” and generalizable results. However, these assumptions make the problems deviate from the real world by a large extent.

Real cases-based methods should not repeat some existing methods to solve a “new” problem in the real world. Instead, these methods should have the needed academic rigor and novelty, and be clearly related to specific real-world based practices. With these kinds of OR methods, the respective new discovery, models development, and insights all become more significant, and the proposed methods can be verified with respect to the real cases.
The *Annals of Operations Research* is a well-established journal devoted to publishing cutting edge research in scientific areas where operations research methods apply. The journal also has a tradition of publishing state-of-the-arts research in mathematical methodologies and their applications. This special issue follows this tradition and aims to publish high-quality research papers as well as state-of-the-art review articles exploring real-case based operations research methods with significant real-world applications. Real-cases based studies with industrial collaborators are especially welcome. Original and high quality contributions that do not contain any previously published material and are not currently under review by other journals or conferences are sought.

**The main topics of interest include, but are not limited to:**

- Real-cases based OR methods for economics systems
- Real-cases based OR methods for supply chain and logistics management
- Implementing novel OR methods in the real world
- Real-cases based system reliability improvement with optimization methods
- Algorithms for real-cases based business operations
- OR methods for real world location and facility optimization problems
- Real-cases based OR methods for non-profit organizations
- Real OR optimization and scheduling case studies
- Advanced information technology based OR methods for production systems
- OR methods to enhance real sustainability cases
- Heuristics for solving real cases based operations problems

**Instructions for authors can be found at:**

[http://www.springer.com/business/operations+research/journal/10479](http://www.springer.com/business/operations+research/journal/10479)
Authors should submit a cover letter and a manuscript by **1 March 2018** via the Journal’s online submission site. Manuscripts submitted after the deadline may not be considered for the special issue and may be transferred to a regular issue.

Please see the Author Instructions on the web site if you have not yet submitted a paper through Springer's web-based system, *Editorial Manager*. Be sure to note when leaving a comment that your work is intended for the special issue and to select the article type *"RealCaseOR"*.

Papers will be subject to a strict review process managed by the Guest Editors and accepted papers will be published online individually, before print publication.

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