Vector optimization (VO) problems usually investigate the optimal elements for vector-valued objective functions with respect to a given partial ordering and subject to certain constraints. This type of problems can be found not only in applied mathematics and operational research but also in engineering, economics, politics, transportation science, and so forth. VO contains various kinds of important optimization and variational models with vector-valued or set-valued maps, such as multiobjective optimization, vector variational inequalities, vector complementarity problems, generalized Ky Fan inequalities, vector network equilibrium problems and so on. Some researches show that the Image Space Analysis (ISA) is always a powerful tool to solve nonconvex and nonsmooth optimization problems, and also a unifying scheme for any kind of problems that can be expressed under the form of the impossibility of a parametric system. It is also shown that VO and ISA have the evident potential to remain important and active research topics in both the near and foreseeable future. However, there are few concerns about the open problems of VO and the
analytical tool ISA up to now. This special issue concentrates on reviewing the latest progress of VO and ISA and exploring profound open problems to extend the theoretical depth in these areas.

**Subject Coverage**

Relevant topics include, but are not limited to, the following:
- Multiobjective optimization
- Vector optimization problems
- Vector-valued optimization
- Vector variational inequalities
- Vector complementarity problems
- Generalized Ky Fan inequalities
- Image Space Analysis for (vector) optimization problems
- Image Space Analysis for (vector) variational problems
- Vector network equilibrium problems
- Variational analysis in Vector Optimization
- Bi-level Vector Extremum Problems

**Important Dates**

December 31, 2017: Submission deadline

**Manuscript Submission**

Submitted papers should be original and not have been previously published nor be currently under consideration for publication elsewhere. In order to publish in Journal of Optimization Theory and Applications, a strong theoretical contribution of the submitted paper is required.

All manuscripts should be submitted electronically by using online manuscript submission at https://www.editorialmanager.com/jota/. The authors should select “Recent Advances and Open Problems on VO and ISA” when you reach “Select Article Type” step in the submission process.

**Refereeing Process**

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. All inquiries about the special issue should be directed to the Guest Editors.