Special Issue

Based on the 4th International Conference on

Numerical Analysis and Optimization

Guest Editors

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and

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Preface

This special issue contains selected papers presented at the *Fourth International Conference on Numerical Analysis and Optimization: Theory, Methods, Applications and Technology Transfer* (NAOIV-2017), held during January 2-5, 2017, at Sultan Qaboos University (SQU), Oman. More information is available at https://conference.squ.edu.om/Default.aspx?tabid=2157. The NAOIV-2017 conference was sponsored by SQU, Oman Mathematics Committee, COMSTECH (Pakistan), AMPL (USA), German University of Technology (GUtech) in Oman, and the British Council (Oman). Seventeen world leading researchers gave keynote lectures. In total, thirty-seven international participants contributed talks. After the conference, selected contributions were invited to be submitted as full papers for publication in a special edited book of the Springer series on Proceedings in Mathematics and Statistics and *SQU Journal for Science*.

Seven of the papers were selected for this special edited issue, each of which was accepted after a peer review process by independent reviewers. We wish to express our gratitude to all contributors. We are also indebted to many anonymous referees for the care taken in reviewing the papers submitted for publication.

The NAO conference series is held once every 3 years at SQU: the first conference (NAO-2008) was held on April 6-8, 2008, the second conference (NAOII-2011) was held on January 3-6, 2011, and the third conference (NAOIII-2014) was held on January 5-9, 2014. The NAO conference will hopefully remain a forum where prominent mathematicians, worldwide experts and active researchers gather and meet to share their knowledge on new scientific methodologies and simulate the communication of new innovative ideas, promote scientific exchange and discuss possibilities of further cooperation, networking and the promotion of the mobility of senior and young researchers and research students.

For the NAOIII-2014 conference (http://conference.squ.edu.om/Default.aspx?tabid=572), a total of 13 keynote papers were published in the edited book "*Numerical Analysis and Optimization: NAO-III, Muscat, Oman, January 2014,*" volume 134 (2015), Springer series on Proceedings in Mathematics and Statistics, and eight papers were published in the special issue on "*Numerical Analysis and Optimization,*" volume 20, No. 2 (2015), *SQU Journal for Science*.

For NAOII-2011 (http://conference.squ.edu.om/Portals/16/Conference2011/index.htm), nineteen papers were selected for two special issues of the *SQU Journal for Science,* highlighting the two themes of the conference *Numerical Optimization* and *Numerical Analysis*. Eleven papers were published in the volume 17(1) for the (2012) special issue on *Numerical Optimization* and eight papers in volume 17(2) for the (2012) special issue on *Numerical Analysis*.

For the first NAO-2008 conference, M.J.D. Powell (who was a major figure in the world community of optimization researchers and left us during the year 2015) delivered the first plenary talk in the NAO series. For more details, visit the website:
http://conference.squ.edu.om/Portals/16/Conference2008/index.htm

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