



2023 MMOR best paper award

Oliver Stein¹

© The Author(s) 2024

Each year the *MMOR Best Paper Award* is bestowed on an excellent article published online in MMOR during the previous year. The list of past and current awardees is published on the MMOR web page. Candidates are nominated by the members of the MMOR editorial board, and the editorial board decides about the awardee(s).

In 2023 we published 32 papers online in MMOR. It is my great pleasure to announce that the 2023 MMOR Best Paper Award has been bestowed on the paper

A partial ellipsoidal approximation scheme for nonconvex homogeneous quadratic optimization with quadratic constraints

by *Zhuoyi Xu, Linbin Li and Yong Xia* (Fig. 1).

Abstract

An efficient partial ellipsoid approximation scheme is presented to find a $1/\lceil m/2 \rceil$ -approximation solution to the nonconvex homogeneous quadratic optimization with m convex quadratic constraints, where $\lceil x \rceil$ is the smallest integer larger than or equal to x . If there is an additional nonconvex quadratic constraint beyond the m convex constraints, we can use the new scheme to find a $1/m$ -approximation solution.

Linbin Li earned his bachelor's degree from the School of Mathematical Sciences, Beihang University in 2020. Currently dedicated to pursuing a Ph.D. in applied mathematics at the same institution, he is now in his third year of doctoral studies.

Dr. Yong Xia is a full professor and deputy dean at the School of Mathematical Sciences, Beihang University, China. He received his Ph.D. from the Chinese Academy of Sciences in 2007. He is a member of the editorial board of the Journal of the Operations Research Society of China and has authored over 90 papers on mathematical optimization.

Dr. Zhuoyi Xu is a lecturer at the School of Statistics, Capital University of Economics and Business, China. She received her Ph.D. in applied mathematics from Beihang University in 2021. Her research is concentrated on approximation algorithms for nonconvex quadratic programming.

Congratulations to the authors in the name of the MMOR editorial board!

✉ Oliver Stein
stein@kit.edu

¹ Institute for Operations Research, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany



Fig. 1 left to right: Linbin Li, Yong Xia and Zhuoyi Xu

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.