Announcement: Howard Rosenbrock Prize 2018

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As the editor-in-chief of *Optimization and Engineering* (OPTE), I am delighted to announce the 2018 Rosenbrock Prize. This prize is awarded annually to honor the authors of the best paper published in OPTE in the previous year. The \$500 prize is sponsored by Springer. Past recipients of the prize were Hicken (2014), Simon and Ulbrich (2015), Kim and Wright (2016), and Le Thi and Pham Dinh (2017).

The winners of the 2018 Rosenbrock Prize are **Laurent Hoeltgen, Michael Breuß, Gert Herold, and Ennes Sarrad** for their work titled **Sparse ℓ_1 regularisation of matrix valued models for acoustic source characterisation** (Hoeltgen et al. 2018). Laurent Hoeltgen and Michael Breuß are at the Chair for Applied Mathematics at the Brandenburg University of Technology Cottbus-Senftenberg in Cottbus, Germany. Gert Herold and Ennes Sarrad are at the Institut für Strömungsmechanik und Technische Akustik at the Technische Universität of Berlin, Germany.

This year's winning paper was selected by a committee composed of the committee-chairman Makoto Ohsaki (University of Kyoto, Japan) and committee-members Marina Epelman (University of Michigan, USA) and Luis Zuluaga (Lehigh University, USA). The group produced the following citation for the winning paper:

Reconstruction of levels and locations of sound sources from the measured sound pressure with an array of microphones is a common problem in acoustic engineering. Therefore, many methods including covariance matrix fitting, deconvolution, and those based on source coherence have been proposed. Because the reconstruction process can be formulated as an ill-posed inverse problem, optimization methods for finding sparse solutions can be used effectively. This paper proposes three models of the selection problem of locations and levels of sound as convex optimization problems with a sparse complex-valued matrix variable. A solution method based on the Split Bregman algorithm is proposed, and the closed form of soft shrinkage operator, which is one of the proximal operators, is obtained for the specific definition of complex-valued matrix norm. In the numerical examples, three locations of sound source are found from 1681 possible locations using the sound pres-

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sure observed at 64 microphones. The results show that the proposed method outperforms the existing ones especially for noisy data. In summary, this paper is an excellent contribution to development and application of an optimization method to find sparse solutions for an important inverse engineering problem.

The Rosenbrock Prize is named after Howard Rosenbrock for his excellent contributions in bridging the gap between optimization and engineering (Anjos 2015). OPTE provides a forum for researchers in both engineering and optimization to learn about new developments in optimization, and challenging and successful applications of optimization in engineering. Our journal encourages submissions of high-quality papers exploring optimization algorithms, software, and theory, and the interfaces between optimization and engineering.

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