

An Algorithm for Generating of Irregular Problems of Semi-Definite Programming

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In the talk, we present an algorithm (generator) that constructs non-regular Semi-definite programming (SDP) instances with prescribed irregularity degrees and a database of non-regular test problems created using this generator. For testing the regularity of SDP problems, we use the Algorithm DIIS developed previously and based on the concept of the space of immobile indices. Numerical experiments using popular SDP solvers on the problems of this database permit one to conclude that the most efficient solvers are not efficient when applied to non-regular problems. (The work is prepared with Olga Kostyukova and Eloisa Macedo).

References:

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