

Referee report of the paper Theory of Semidefinite
Programming for Sensor Network Localization by
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In this paper the authors analyze the Sensor Network Localization problem, and study a SDP method for its solution. By using SDP duality they show that this method localizes in polynomial time any network that has unique sensor position to fit given distance measures. Moreover, they study the connections with rigidity theory, and give a simple condition for checking whether a graph G with anchors has a unique realization on the plane. Finally, they introduce the notion of strong realizability and show that the method identifies all strongly localizable sub-networks.

The paper is interesting and well written and the results are sound. Thus I recommend publication in Mathematical Programming.