

POEMA

<i>Meeting Type</i>	POEMA 3rd Workshop
<i>Date</i>	17 February 2021
<i>Time</i>	10:00 – 16:00 CET
<i>Speakers</i>	<p>Markus Schweighofer (University of Konstanz)</p> <p>POEMA ESR9 - Lorenzo Baldi (Inria)</p> <p>Claus Scheiderer (University of Konstanz)</p> <p>Pravesh K. Kothari (Carnegie Mellon University)</p>
<i>No of attendants</i>	62

<p>Talk: Exact Moment Representation in Polynomial Optimization by POEMA ESR9 - Lorenzo Baldi (Inria)</p>	<ul style="list-style-type: none"> • Victor Magron: I have a question about the presented numerical experiments • Victor Magron: So why can you obtain Motzkin's minimizers? Because of the numerical perturbation induced by the SDP solver • Victor Magron: It adds monomial terms of degree 8 so that the sum is SOS. There are several papers on the topic in both commutative and noncommutative contexts • Victor can send the exact refs: <ul style="list-style-type: none"> https://arxiv.org/abs/1203.3777 https://arxiv.org/pdf/1811.02879.pdf http://www.optimization-online.org/DB_FILE/2008/08/2065.pdf http://www.optimization-online.org/DB_HTML/2017/10/6249.html • Michal Kocvara: Victor, is the inaccuracy-rubustness only related to Interior Point solvers? • Victor Magron: I think so • Michal Kocvara: Would you have some sample problems, so that I can try different solvers? • Michal Kocvara: question to Victor • Victor Magron: Yes sure, the ones mentioned in https://arxiv.org/pdf/1811.02879.pdf for instance • Victor Magron: with higher precision solvers, the phenomenon vanishes • Victor Magron: If one adds gradient ideal constraints, • Victor Magron: (high precision: SDPA-GMP) • Victor Magron: In http://www.math.ucsd.edu/~njw/PUBLICPAPERS/minpolygrad_MP.pdf, he also extracts at order 4, example 3, page 18
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<p>Talk: Recent Progress in Algorithmic Robust Statistics via the Sum-of-Squares Method by Pravesh K. Kothari (Carnegie Mellon University)</p>	<ul style="list-style-type: none">• Alexander: Pravesh, why does that \leftrightarrow implication arrow near the TV distance hold in both directions?• Alexander: So, this certifiable subgaussianity means that *among all distributions* it can be characterized by semidefinite stuff, but still not among *all* functionals, right?
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