

POEMA

<i>Meeting Type</i>	POEMA 2nd Workshop
<i>Date</i>	11 December 2020
<i>Time</i>	09:00 – 16:45 CEST
<i>Speakers</i>	<p>Victor Vinnikov (BGU Math)</p> <p>Jonathan Epperlein (IBM)</p> <p>Frank Vallentin (University of Cologne)</p> <p>Juan Vera (Tilburg University)</p> <p>Fernando Oliveira (TU Delft)</p> <p>Milan Korda (LAAS-CNRS)</p>
<i>No of attendants</i>	52

<p>Talk:Determinantal representations certifying hyperbolicity and stability by Victor Vinnikov (BGU Math)</p>	<ul style="list-style-type: none"> • Marie-Francoise Roy. What is the most easy proof in all these proofs ? • Alejandro Gonzalez Nevado: He apparently improved the result of Kummer. He can choose a basis inside the original rcs and obtain a det rep of a multiple whose rcs contain these points. • Bernard Mourrain: Is there an effective way to construct the matrices A_i of a (hyperbolic) certificate ?
<p>Talk: Semidefinite programming bounds for product free subsets in groups by Frank Vallentin (Universität zu Köln)</p>	<ul style="list-style-type: none"> • Sven Polak: on which graph do you apply the hofmann bound exactly? • Lucas Slot: Why do we expect exponentially small product free sets in $SU(n)$? • Luis Felipe Vargas: Is it known for which graphs the bound is exact? • Sven Polak: Are there tables with upper and lower bounds for specific (nonabelian) groups?
<p>Talk: The simplex way to obtain non-negative certificates over compact semialgebraic sets by Juan Vera (Tilburg University)</p>	<ul style="list-style-type: none"> • Marie-Francoise Roy: are the degree bounds very high ? in Polys's theorem they are ! • Victor Magron: There is also TSSOS: https://arxiv.org/abs/1912.08899, the accuracy is always better than SDSOS at the first "sparse" relaxation order