

Felix Constantin Kirschner

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Born: August 12, 1993—Hof, Germany

Nationality: German

Current position

1/9/19–present *PhD Candidate*, Department of Econometrics & Operations Research, Tilburg University. Research Group: Operations Research.

Supervisor: Etienne de Klerk

Co-Supervisor: Juan Vera Lizcano

FUNDING

Current position funded within POEMA (Polynomial Optimization, Efficiency through Moments and Algebra), an innovative training network funded under the H2020-MSCA-ITN-2018, as part of the Marie Skłodowska-Curie Actions funding scheme, see <http://poema-network.eu/>.

Education

28/6/13 ABITUR, Otto-Hahn-Gymnasium, Bensberg, Germany

22/7/16 BSC in Economathematics, University of Cologne, Germany

28/3/19 MSC in Economathematics, University of Cologne, Germany

Publications & research activity

PUBLICATIONS

2/22 De Klerk, E., Kirschner, F., “Convergence rates of RLT and Lasserre-type hierarchies for the generalized moment problem over the simplex and the sphere”. *Optimization Letters*. 1-18. 10.1007/s11590-022-01851-3.

PREPRINTS

15/11/21

Henrion, D., De Klerk, E., Kirschner, F., Korda, M., Lasserre, J.-B., Magron, V. "Revisiting semidefinite programming approaches to options pricing: complexity and computational perspectives", preprint available at <https://arxiv.org/abs/2111.07701>

ONGOING PROJECTS

Collaboration with Etienne de Klerk studying the construction of polynomial approximation kernels via semidefinite programming techniques. Besides their use in approximation, these objects may be employed to study and analyze the convergence behavior for optimization hierarchies.

TALKS GIVEN AT CONFERENCES & WORKSHOPS

2021

- 19/7–23/7 SIAM Conference on Optimization (OP21), talk at minisymposium "Optimization with Polynomials, Matrices and Tensors" organized by Etienne de Klerk and Jiawang Nie, title: "Convergence rates of RLT and Lasserre-type hierarchies for the generalized moment problem over the simplex and the sphere"
- 16/8–20/8 SIAM Conference on Applied Algebraic Geometry (AG21), talk at minisymposium "Positive Polynomials, Moments, and Applications" organized by Monique Laurent, Victor Magron and Bernard Mourrain, title: "Convergence rates of RLT and Lasserre-type hierarchies for the generalized moment problem over the simplex and the sphere"
- 13/12–17/12 POEMA Industrial Workshop. Title of the talk: "Bounding option prices using tools from polynomial optimization" based on <https://arxiv.org/abs/2111.07701>. Slides and recording available at <https://bit.ly/3BQgkLd>.

2022

- 7/2–11/2 POEMA Workshop 4. Title of the talk: "Construction of multivariate polynomial approximation kernels via semidefinite programming". Slides and recording available at <https://bit.ly/3pbO3JW>.