

# Curriculum Vitae

Olga Kuryatnikova  
kuryatnikova@gmail.com

## Academic work experience

- Oct 2020 – present      **Assistant professor**, Erasmus University Rotterdam  
Erasmus School of Economics, Department of Econometrics  
*Develop solution approaches and approximation algorithms for non-linear problems*
- Oct 2019 – Oct 2020      **Postdoctoral fellow**, University of Western Ontario  
Ivey Business School  
*Developed solution approaches for non-linear problems in energy network optimization*
- Sep 2015 – May 2019      **Researcher and teacher**, Tilburg University  
TiSEM, Department of Econometrics & Operations Research  
*Worked in polynomial optimization, convex and conic optimization*

## Industrial work experience

- Apr 2014 – July 2014      **Intern in the department of finance & control**, Sociale Verzekeringsbank  
(institution that implements national insurance schemes in the Netherlands)  
*Built an econometric model of the demand for social assistance for retirees*
- June 2011 – Aug 2013      **Credit risk analyst in the department of corporate ratings**, Expert RA  
(rating agency in Russia)  
*Developed rating methodologies and conducted rating analysis for pension funds, industrial companies and sovereign issuers*

## Education

- Sep 2015 – Sep 2019      **PhD in Operations Research**, Tilburg University  
*Thesis: The many faces of positivity to approximate structured optimization problems*  
*Supervisors: J.C. Vera, R. Sotirov, L.F. Zuluaga*
- Aug 2013 – Aug 2015      **MSc in Econometrics and Operations Research**, Tilburg Uni. (cum laude)
- Aug 2010 – May 2012      **MSc in Economics**, Higher School of Economics
- Sep 2006 – June 2010      **BSc in Economics**, Lomonosov Moscow State University (cum laude)

## Research

### Publications

- **The maximum  $k$ -colorable subgraph problem and related problems**, with R. Sotirov and J. C. Vera. Online first in *Inform's Journal on Computing*, 2021.
- **New bounds for truthful scheduling on two unrelated selfish machines**, with J. C. Vera. *Theory of Computing Systems*, 64: 199–226, 2020.

- **Approximating the cone of copositive kernels to estimate the stability number of infinite graphs**, with J. C. Vera. Electronic Notes in Discrete Mathematics, 62: 303–308, 2017. Proceedings of LAGOS’17 – IX Latin and American Algorithms, Graphs and Optimization.

#### Working papers

- **Adjustable robust two-stage polynomial optimization with application to AC optimal power flow**, with B. Ghaddar and D. K. Molzahn. Submitted, 2021.
- **Copositive way to obtain certificates of non-negativity over general semialgebraic sets**, with J. C. Vera and L.F. Zuluaga. Submitted, 2019.
- **Generalizations of Schoenberg’s theorem on positive definite kernels**, with J. C. Vera. We are considering a generalization of the result in this preprint, 2019.
- **Positive semidefinite approximations to the cone of copositive kernels**, with J. C. Vera. Submitted, 2018.

## Teaching

Oct 2021 – Dec 2021 (forthcoming)	Optimization under Uncertainty, Erasmus University Rotterdam level: master, role: coordinator and lecturer
2020 – 2021	Linear Programming, Erasmus University Rotterdam level: bachelor, role: coordinator and lecturer
2018 – 2019, 2017 – 2018	Optimization, Tilburg University level: master, role: teaching assistant and lecturer
2018 – 2019, 2017 – 2018, 2016 – 2017	Decision making with Business Analytics, Tilburg University level: master, role: teaching assistant
2017 – 2018, 2016 – 2017	Statistics, Tilburg University level: bachelor, role: teaching assistant

## Conferences and workshops

July 2021	SIAM Conference on Optimization (OP21) (speaker)
May 2021	IISE Annual Conference & Expo Presentation (speaker)
October 2020	Data Fest Moscow 2020 (speaker)
January 2020	Workshop on Smart Cities Optimization (participant)
July 2018	ISMP, International congress of mathematical optimization (speaker)
October 2017	Oberwolfach Workshop 1744b on Copositivity and Complete Positivity (speaker)
October 2017	LAGOS, IX Algorithms, Graphs and Optimization Symposium (speaker)
July 2017	IFORS, Conference of the international federation of operational research societies (speaker)
July 2017	EUROPT Workshop on Advances in Continuous Optimization (speaker)
August 2019, August 2016	ICCOPT, International conference on continuous optimization (speaker)

## Visits

May – June 2018    Lehigh University; host: Luis F. Zuluaga  
April 2018            Delft University of Technology; host: Fernando M. de Oliveira Filho  
March 2018           Trier University; host: Mirjam Dür

## Other

- Refereeing: Journal of Global Optimization, SN Operations Research Forum
- Operations Research Seminar organizer at Erasmus University Rotterdam, 2020 - present
- Conference session organizing: ISMP 2018, “Copositive and completely positive optimization”
- Languages: Russian – native, English – fluent, Dutch – advanced, German – basic