Stefan Wrzaczek

Curriculum Vitae

Personal

Date of birth:	April 25, 1980
Citizenship:	Austria
Family status:	Married, two daughters

Educational attainment

2016	Habilitation (venia docendi) in *Operations Research*
	Completion: December 20, 2016 (Priv.Doz.)
	Institute of Statistics and Mathematical Methods in Economics (Vienna University of Technology)
2004-2005	PhD study in Technical Sciences (Technical Mathematics) at the Vienna University of Technology
	Completion: July 4, 2005 (Dr. techn.)
1999-2004	Study of Technical Mathematics (Mathematical Economics) at the Vienna University of Technology
	Completion: January 26, 2004 (DI)

Current position

Since 05/2021	Research Scholar at International Institute for Applied Systems Analysis (IIASA), Economic Frontiers Program

Previous positions

2016-04/2021	Research associate at Austrian Academy of Sciences (ÖAW) Vienna Institute of Demography (VID)
2013-2015	Research associate and project leader at the University of Vienna Department of Business Decision and Analytics
2011-2012	Research associate at Austrian Academy of Sciences (ÖAW) Vienna Institute of Demography (VID)
2005-2012	Research associate at the Vienna University of Technology Institute for Mathematical Methods in Economics
1997-2002	Business administration, Berndorf Baederbau GmbH & Co KG (each year for two months during the summer holidays)

Awards and scholarships

2005   Austrian Society of Operations Research (OeGOR) – Bank Austria Creditanstalt Award for Operations Research 2005 for the Dissertation "A Multi-Period Allocation Mechanism for Network Resources"

2004   Best Paper Award for "Multi-Period Auctions for Network Resources" (together with P. Reichl and S. Bessler), 11th International Telecommunications Network Strategy and Planning Symposium, Networks 2004, Vienna, Austria

Fundings

2017   Project funded by the Austrian Science Fund (FWF), Project No. P 30665-G27, 'Life-cycle behaviour in the face of large shocks to health', as PI (together with M. Kuhn)

2014   Project funded by the Austrian Science Fund (FWF), Project No. P 26184-G11, 'Medical Progress, Health Expenditure and Population Ageing (MEDPRO)' as co-applicant (PI: M. Kuhn)

2012   Project funded by the Austrian Science Fund (FWF), Project No. P 25275-G11, 'Changing market structures in intertemporal optimization' as PI

Submitted grant proposals

- 'Optimally controlling the dynamic of epidemics' (as co-applicant, PI: D. Grass), submitted to OeNB's Anniversary Fund (call September, 2022)
- 'Public vs private health care providers: A dynamic analysis' (as PI, together with M. Kuhn), submitted to Austrian Science Fund (FWF) and to OeNB's Anniversary Fund (call March, 2022)
- 'DISROPT - Optimal control of dynamic models with stochastic disruptive changes', submitted to Horizon Europe (ERC Advanced Grant call April 2022)

Research stays

02/2019	Tilburg University, Tilburg, Netherlands
11-12/2016	Gerad, Montreal, Canada
10-11/2013	Gerad, Montreal, Canada
01/2011	University of Bologna, Italy
05-06/2006	Max Planck Institute for Demographic Research, Rostock, Germany

Membership

- Austrian Society of Operations Research (OeGOR),
  Co-Leader of the OeGOR-working group 'Optimal Control and Dynamic Games'
- International Society on Dynamic Games (ISDG)
- European Society for Population Economics (ESPE)

Conference organization

- Organization (joint with M. Kuhn) of IIASA-workshop on 'Mathematical modelling of resilience and disruptive changes', September 2022, Laxenburg.

- Organizer of the three sessions 'COVID-19: optimal control approaches', and three sessions 'Dynamic games and applications' at the 15th Viennese on Conference Optimal Control and Dynamic Games, July 12-15, 2022, Vienna.
- Member of Program committee 31th European Conference on Operational Research (EURO 2021), July 11-14, 2021, Athens, Greece.
- Member of the organization committee of the 7th Viennese vintage workshop (Heterogeneous Dynamic Models of Economic and Population Systems), December 5-6, 2019, Vienna.
- Organizer of the stream 'Optimal Control Theory and Applications' at the 29th European Conference on Operational Research, Juni 23-26, 2019, Dublin, Ireland.
- Member of Program committee 29th European Conference on Operational Research (EURO 2018), July 8-11, 2018, Valencia, Spain.
- Organizer of the two sessions 'Dynamic Games in Economics' at the 14th Viennese Conference on Optimal Control and Dynamic Games, July 3-6, 2018, Vienna.
- Organizer (together with A. Seidl) of the meeting of the OEGOR working group 'optimal control and dynamics games', November 10, 2017, Vienna.
- Member of the organization committee of the 6th Viennese vintage workshop (Heterogeneous Dynamic Models of Economic and Population Systems), December 1-2, 2016, Vienna.
- Organizer of the stream 'Dynamic models in game theory' and the session 'Health care management' at the 28th European Conference on Operational Research, July 3-6, 2016, Poznan, Poland.
- Organizer of the stream 'Dynamic models in game theory' at the 27th European Conference on Operational Research (EURO 2015), July 12-15, 2015, Glasgow.
- Organizer of the sessions 'Health care 1', 'Health care 2' and 'Regime switching in differential games' at the 13th Viennese on Workshop Optimal Control and Dynamic Games, May 13-16, 2015, Vienna.
- Member of the organization committee of the 5th Viennese vintage workshop (Heterogeneous Dynamic Models of Economic and Population Systems), November 25-26, 2013, Vienna.
- Organizer of the sessions 'health and health care 1' and 'health and health care 2' at the 12th Viennese on Workshop Optimal Control, Dynamic Games and Nonlinear Dynamics, May 30 - June 2, 2012, Vienna.

IIASA committees
- Innovation and bridging grants fund (IBGF), chair, 2022-2023
- Authorship guidelines task force (AGTF), 2021
- Committee on performance awards fund (PAF), 2021
- YSSP award panel, 2021

Recent publications (peer-reviewed)

- Alessandra Buratto, Maddalena Muttoni, Stefan Wrzaczek, Michael Freiberger: Should the COVID-19 lockdown be relaxed or intensified in case a vaccine becomes available? PLOS ONE 17 (9), 2022, e0273557.

- Michael Freiberger, Dieter Grass, Michael Kuhn, Andrea Seidl, Stefan Wrzaczek: Chasing up and locking down the virus: Optimal pandemic interventions within a network. Journal of Public Economic Theory, accepted.

- Gustav Feichtinger, Richard F. Hartl, Peter M. Kort, Andrea Seidl, Stefan Wrzaczek: Asymmetric information in a capital accumulation differential game with spillover and learning effects. Journal of Optimization Theory and Applications, accepted.

- Andrea Seidl, Stefan Wrzaczek: Opening the source code: the threat of forking. Journal of Dynamics and Games, accepted.

- Gustav Feichtinger, Luca Lambertini, George Leitmann, Stefan Wrzaczek: Managing the tragedy of commons and polluting emissions: a unified view. European Journal of Operational Research 303, 487-499.

- Richard F. Hartl, Peter M. Kort, Stefan Wrzaczek: Planned obsolescence and reputation buildup: the effect of warranty. International Journal of Production Research, 2022.

- Stefan Wrzaczek: An OLG differential game of pollution control with the risk of a catastrophic climate change. International Game Theory Review 34, No. 4, 2250002, 2021.

- Jonathan P. Caulkins, Dieter Grass, Gustav Feichtinger, Richard F. Hartl, Peter M. Kort, Alexia Prskawetz, Andrea Seidl, Stefan Wrzaczek: COVID-19 and optimal lockdown strategies: The effect of new and more virulent strains. In: Boado-Penas, M.dC., Eisenberg, J, Sahin, S. (eds.): Pandemics: Insurance and Social Protection, Springer, 2021.

- Jonathan P. Caulkins, Dieter Grass, Gustav Feichtinger, Richard F. Hartl, Peter M. Kort, Alexia Prskawetz, Andrea Seidl, Stefan Wrzaczek: The optimal lockdown intensity for COVID-19. Journal of Mathematical Economics 93, 2021, 102489.