

Marieke Quant

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Career information

I am an associate professor at the department of Econometrics and Operations Research at Tilburg University. My area of research is in Game Theory. In particular, together with colleagues, I like to work on refinements of Nash equilibria, bankruptcy problems and sequencing games. Furthermore, we analyze models in which cooperative and non-cooperative approaches come together.

Currently, I am responsible for the teaching allocation of our department and as such I am a member of our departmental management team. As a teaching allocator I assign the teaching tasks that are involved in all courses taught by our department.

I am actively involved in teaching professionalization by coaching student assistants, PhD's and (junior) colleagues in their teaching. I have set up and developed a system for mentoring and coaching of young lecturers in our department.

Work Experience

May 2018 – present	Tilburg University, TiSEM: Associate Professor.
Jan. 2010 – April 2018	Tilburg University, TiSEM: Assistant Professor.
July 2011 – Nov. 2011	University of Melbourne, Faculty of Science, department of Mathematics and Statistics: Lecturer.
May 2006 – Dec. 2009	Tilburg University, TiSEM: Lecturer.
Sept. 2001 – May 2006	Tilburg University, TiSEM: PhD (research area: Game Theory).

Education

2001 – 2006	Tilburg University: PhD in Business (Game Theory) : <i>Interactive Behavior in Conflict Situations</i> . Tilburg: Tilburg University Press, ISBN: 90 5668 169 9, September 8, 2006. Promotor: Prof. Dr. P.E.M. Borm, copromotor: Dr. J.H. Reijnders.
1997 – 2001	Utrecht University: Master of Science (Mathematics, <i>cum laude</i>).

Additional Education/Training

May 2023	Successfully completed the Connected Leading Program
May 2019	Certificate SUTQ (Senior University Teaching Qualification)
May 2015	Participation in Leadership training for assistant professors: Effective coaching and managing.

June 2013	Participation in Seminar on Excellent Learning through Teaching Excellence, organized by University College Roosevelt in cooperation with Harvard University's Derek Bok Center for Teaching and Learning.
Jan. 2011	Certificate UTQ (University Teaching Qualification)
Sept. 2009	Certificate Master Class Spoken English.
Jan. 2005	Diploma LNMB (Dutch Network on the Mathematics of Operations Research).
June 2003	Certificate Teacher Training Course.

Management and Administrative tasks

Sept. 2022 – present	Member of College Beroep voor de Examens, Commissie van Advies voor de Bezwaar en Beroepschriften, Geschillencommissie werknemers, Klachtencommissie Ongewenst Gedrag
Jan. 2020 – present	Member of Senior University Qualification (SUTQ) committee (assessing SUTQ portfolios of lecturers).
Sept. 2016 – present	Teaching allocator of the department EOR and, as such, member of the departmental management team.
Sept. 2016 – Aug 2021	Member of University Teaching Qualification (UTQ) committee (assessing UTQ portfolios of lecturers).
Nov. 2010 – Dec 2018	Member of the examination committee TiSEM, in the period Jan 2017 – Dec 2018 as vice chair.
Sept. 2008 – June 2013	Member of project team Mathematics D for pre-university students.

Teaching

- Supervision of bachelor and master theses in the bachelor of Econometrics and Operational Research.
- Lectures for the courses :
Mathematical Analysis and Probability Theory/Advanced Mathematics 1 for Data Science, Multivariable Mathematical Analysis/Advanced Mathematics 2 for Data Science, Inleiding Data-Analyse, Decision Making (University of Melbourne), Introduction Analysis and Probability Theory, Linear Algebra (University of Melbourne), Mathematical Analysis 1, Mathematics 1 for IBA, Mathematics 2 for EBE/ECO, Quantitative Methods 2, Statistics for pre-masters students, Statistics and Data Management 1, Statistics for ECO, Statistiek 1, Statistiek 2, Statistics 2 for IBA, Wiskunde, Wiskunde D (pre-university students)
- Coordination of the courses:
Advanced Mathematics 1 for Data Science, Advanced Mathematics 1 for Data Science , Statistics for pre-master, Wiskunde/Mathematics 1 for IBA, Introduction Analysis and Probability Theory, Inleiding Data-analyse/Statistics and Data Management 1/Statistics for ECO, Wiskunde 2 voor EBE.
- Tutorials for the courses:
Advanced Mathematics 2, Mathematical Analysis 1, 2 and 3, Introduction to Probability Theory, Probability and Statistics, Differentiation and Integration Theory, Statistics for pre-masters, Wiskunde, Statistics 1 and 2.
- Teacher training course for PhD students.

- Development of teaching material:
 - o Reader Mathematics 2 for EBE /ECO, “*Linear and dynamical Systems*”, Marieke Quant and Peter Borm (2010).
 - o Readers Mathematics D (pre-university students): “*Inleiding in de speltheorie*” (Introduction to Game Theory), Marieke Quant, Elleke Janssen, Herbert Hamers, (first edition 2009, second edition 2010) and “*Inleiding in de financiële wiskunde*” (Introduction to Financial Mathematics), Elleke Janssen, Marieke Quant, Herbert Hamers, (first edition 2010).
 - o Reader Mathematics B (pre-university students): “*Integraalrekening*” (Integral theory), M. Quant and H. Hamers.

Prizes with respect to teaching: excellent teacher TiSEM for several courses since 2013.

PhD Supervision

- A. J. van Beek (start September 2019, planned date of defense October 13, 2023, *Solutions in multi-actor projects with collaboration and strategic incentives*, Tilburg University. Promotores: prof. dr. P. Borm, Prof. Dr. H. Hamers copromotor: Dr. M. Quant).
- J. Schouten (December 16, 2022, *Cooperation, allocation and strategy in interactive decision-making*, Tilburg University. Promotor: prof. dr. P. Borm, copromotores: Dr. R. Hendrickx and Dr. M. Quant).
- M. Musegaas (May 19, 2017, *Cooperative Games and Network Structures*, Tilburg University. Promotor: prof. dr. P.E.M. Borm, copromotor: Dr. M. Quant.

Publications in peer-reviewed journals

1. A. van Beek, B. Malmberg, P. Borm, M. Quant and J. Schouten (2023). *Competition and Cooperation in Linear Production and Sequencing Processes*. Games and Economic Behavior, 139, 117-132.
2. A. van Beek, P. Borm and M. Quant (2021). *Axiomatic characterizations of a proportional influence measure for sequential projects with imperfect reliability*. Axioms, 10 (4), [247].
3. M. Ketelaars, P. Borm and M. Quant (2020). *Decentralization and mutual liability rules*. Mathematical Methods of Operations Research, 92(3), 577-599.
4. M. Musegaas, P. Borm and M. Quant (2018). *Three-valued simple games*. Theory and Decision 85(2), 201-224.
5. M. Musegaas, P. Borm and M. Quant (2018). *On the Convexity of Step out - Step in Sequencing Games*. Top 26(1), 68-109.
6. M. Musegaas, P. Borm and M. Quant (2016) . *Simple and three-valued simple minimum coloring games* Mathematical Methods of Operations Research 84(2), 239-258.
7. M. Musegaas, P. Borm and M. Quant (2015). *Step out – step in sequencing games*. European Journal of Operational Research 246(3), 894-906.
8. T. Tornøe Platz, H. Hamers and M. Quant (2014). *C-complete sets for compromise stable games*. Mathematical Methods of Operations Research, 80 (2), 213-223.
9. E. Lohmann, P. Borm, M. Quant and S. Tijs (2011). *An average lexicographic value for cooperative games*. European Journal of Operational Research 213(1), 210-220.
10. M. Quant and P. Borm (2011). *Random conjugates of bankruptcy rules*. Social Choice and Welfare, 36 (2), 249-266.

11. J. Kleppe, M. Quant and H. Reijnierse (2010). *Public congestion network situations and related games*. Networks, 55(4), 368-378.
12. H. Reijnierse, P. Borm, M. Quant and M. Meertens (2010). *Processing games with restricted capacities*. European Journal of Operational Research, 202(3), 773-780.
13. M. Quant, P. Borm, G. Fiestras-Janeiro and F. van Meegen (2009). *On properness and protectiveness in two-person multicriteria games*. Journal of Optimization Theory and Applications, 140 (3), 499-512.
14. M. Quant, M. Meertens and H. Reijnierse (2008). *Processing games with shared interest*. Annals of Operations Research, 158, 219-228.
15. R. Hendrickx, P. Borm, R. van Elk and M. Quant (2007). *Minimal overlap rules for bankruptcy*. International Mathematical Forum, 2(53-56), 3001-3012.
16. M. Quant, P. Borm, R. Hendrickx and P. Zwikker (2006). *Compromise solutions based on bankruptcy*. Mathematical Social Sciences, 51(3), 247-256.
17. M. Quant, P. Borm and H. Reijnierse (2006). *Congestion network problems and related games*. European Journal of Operational Research, 172(3), 919-930.
18. S. Wintein, P. Borm, R. Hendrickx and M. Quant (2006). *Multiple fund investment situations and related games*. Mathematical Methods of Operations Research, 63(3), 413-426.
19. M. Quant, P. Borm, H. Reijnierse and M. Voorneveld (2006). *On the Beta measure for digraph competitions*. Top, 14, 167-176.
20. J. Gonzales-Diaz, P. Borm, R. Hendrickx and M. Quant (2005). *A geometric characterization of the compromise value*. Mathematical Methods Operations Research, 61, 483-500.
21. M. Quant, P. Borm, H. Reijnierse and S. van Velzen (2005). *The core cover in relation to the nucleolus and the Weber set*. International Journal of Game Theory, 33, 491-503.
22. J. Suijs, P. Borm, H. Hamers, M. Koster and M. Quant (2005). *Communication and cooperation in public network situations*. Annals of Operations Research, 137, 117-140.
23. M. Quant, P. Borm, H. Reijnierse and M. Voorneveld (2003). *On a compromise social choice correspondence*. Top, 11, 311-324.

Date: September 2023