

Personal Information

Webpage: <http://dickinson.website>
Linkedin: www.linkedin.com/in/PJCDickinson
E-mail: peter.jcd@gmail.com
Date of Birth: 16th March 1985
Marital status: Married to Renske C. Dickinson-Bosman.
Address: Den Dolder, The Netherlands.
Citizenship: United Kingdom and Republic of Ireland.
(Thus I retain EU citizenship after Brexit.)



Skills

- I work well both independently and as part of a team, which is demonstrated by my publication record (see next page).
- I pick up new ideas quickly. When I started my PhD I was completely new to the topic that I was to study, but I ended up finishing with a cum laude distinction. This is only awarded to the top 5% of PhD theses.
- I am highly logical and thorough, with a good mathematical knowledge. Up to this point my primary research interests have been Conic, Continuous and Polynomial Optimisation, along with Matrix Analysis.
- I have moderate experience in programming in C, C++, Matlab and Mathematica, along with building visualisations using GeoGebra (www.geogebra.org/peter.jcd).
- I am proficient in HTML and Latex (see <http://dickinson.website> and this pdf).
- I am adept at presenting both in journals and at conferences.
- I have a good knowledge of Dutch. I use the language in practice and participated in the course Dutch Level 4, [TCP Language Centre](#), University of Twente, 2015.

Certified Online Courses

- [Machine Learning](#), Coursera, Stanford University, 2017.
- [Deep Learning](#), IBM Cognitive Class, 2017.
- [Data Science Foundations - Level 2](#), IBM Cognitive Class, 2017.
- [Big Data Foundations - Level 1](#), IBM Cognitive Class, 2017.

Ambitions

My primary ambition is that of continual improvement of my knowledge and skills. I would also like to use my knowledge and skills to help improve people's lives and bring where I work to the top of its field.

Experience

Apr. 2014 - present: Assistant Professor at the University of Twente

Faculty of Electrical Engineering, Mathematics and Computer Science,
University of Twente, The Netherlands.

This is an Assistant Professor position within the group [Discrete Mathematics and Mathematical Programming](#). The position is a combination of research (50%) and teaching (50%), including giving lectures, mentoring students, writing articles, refereeing articles, applying for grants, organising the [DAMUT colloquia](#) and being in task groups. In 2016 I had sole responsibility for the national Mastermath course on Continuous Optimisation in Utrecht, in which approximately 90 students participated.

May 2013 - Feb. 2014: Postdoctoral Student at the University of Vienna

Institut für Statistik und Operations Research, University of Vienna, Austria.

This was a postdoctoral research/teaching position at the University of Vienna, mentored by Prof. Dr. I.M. Bomze. During this I was continuing research from my PhD studies into conic and continuous optimisation. From mid-July to mid-August 2013, I was also a visiting fellow with the [Polynomial Optimization Programme](#) at the Isaac Newton Institute for Mathematical Sciences, University of Cambridge, UK.

May 2009 - Apr. 2013: PhD Student at the University of Groningen

Johann Bernoulli Institute, University of Groningen, The Netherlands.

For my PhD thesis in conic and continuous optimisation, entitled *The Copositive Cone, the Completely Positive Cone and their Generalisations*, I received a cum laude distinction. This distinction is only awarded to the top 5% of PhD theses, and is the highest distinction possible at the University of Groningen. My promotor and supervisor during this was Prof. Dr. M. Dür. During this time I was also a member of the student scuba diving club G.B.D. Calamari, in which I helped students to learn scuba diving whilst they helped me to learn Dutch.

Nov. 2007 - Aug. 2008: Gap year, Backpacking around Australia

In order to support myself during this I did a number of jobs, with my main job being as a scuba diver. In this I primarily led customers around dive sites, which required skills in leadership whilst being friendly, along with knowledge of marine life and diving.

Oct. 2003 - Jun. 2007: Undergraduate at the University of Cambridge

Queens' College, University of Cambridge, The United Kingdom.

I received a double first in a Natural Sciences bachelor and master's focused on physics and mathematics. In 2006 I received my BA in Natural Sciences (grade of 1st for years 1 & 2, and 2:1 for year 3), and in 2007 I received my MSc in Natural Sciences (grade of 2:2).

During this time I was also a member of the [Cambridge University Office Training Corps](#), which presented me with enjoyable challenges, whilst also teaching me leadership skills. Included among the many activities that I participated in with them were scuba diving in Egypt, parachute jumping in Germany and completing the [Leader Development and Assessment Course](#) with the U.S. army.

Dissemination of Work

I have a total of 14 published articles in peer reviewed international journals, along with 1 PhD thesis and 1 article in the journal of the Royal Dutch Mathematical Society. My first article was published in 2010, and my articles already have over 200 citations. I additionally disseminate my research through presentations, and have so far given 38 presentations in 12 countries (excluding classes). Further details of these articles and presentations are provided below and at <http://dickinson.website>.

I have also refereed for 16 international journals, with over 30 referee reports written. A verified partial summary of this is available on my [Publons profile](#).

Publications

1. [Peter J.C. Dickinson](#), *Erratum to: On the DJL conjecture for order 6, Operators and Matrices 11 (2017), Issue 4, 1197–1200.*
2. Immanuel Bomze, Jianqiang Cheng, [Peter J.C. Dickinson](#) and Abdel Lisser, *A fresh CP look at mixed-binary QPs: New formulations and relaxations, Mathematical Programming 166 (2017), Issue 1-2, 159-184.*

3. [Peter J.C. Dickinson](#) and Roland Hildebrand, *Considering Copositivity Locally*, *Journal of Mathematical Analysis and Applications* 437 (2016), Issue 2, 1184–1195.
4. Immanuel Bomze, [Peter J.C. Dickinson](#) and Georg Still, *The structure of completely positive matrices according to their CP-rank and CP-plus-rank*, *Linear Algebra and its Applications* 482 (2015), 191–206.
5. [Peter J.C. Dickinson](#) and Janez Povh, *On an extension of Pólya’s Positivstellensatz*, *Journal of Global Optimization* 61 (2015), Issue 4, 615–625.
* One of the “Top-5 Papers Published in Journal of Global Optimization in 2015”.
6. [Peter J.C. Dickinson](#) and Luuk Gijben, *On the Computational Complexity of Membership Problems for the Completely Positive Cone and its Dual*, *Computational Optimization and Applications* 57 (2014), Issue 2, 403–415.
* This article already has over 70 citations.
7. [Peter J.C. Dickinson](#), *On the Exhaustivity of Simplicial Partitioning*, *Journal of Global Optimization* 58 (2014), Issue 1, 189–203.
 - [Peter J.C. Dickinson](#), *The Copositive Cone*, *Nieuw Archief voor Wiskunde* 15 (2014), Issue 4, 255–256.
* An article in the quarterly journal of the Royal Dutch Mathematical Society introducing myself and my research.
8. [Peter J.C. Dickinson](#) and Janez Povh, *Moment approximations for set-semidefinite polynomials*, *Journal of Optimization Theory and Applications* 159 (2013), Issue 1, 57–68.
9. [Peter J.C. Dickinson](#), Mirjam Dür, Luuk Gijben and Roland Hildebrand, *Scaling relationship between the copositive cone & Parrilo’s 1st level approximation*, *Optimization Letters* 7 (2013), Issue 8, 1669–1679.
* 2013 OPTL Best Paper Award
10. [Peter J.C. Dickinson](#), Gabriele Eichfelder and Janez Povh, *Erratum to: On the set-semidefinite representation of nonconvex quadratic programs over arbitrary feasible sets*, *Optimization Letters* 7 (2013), Issue 6, 1387–1397.
11. [Peter J.C. Dickinson](#), Mirjam Dür, Luuk Gijben and Roland Hildebrand, *Irreducible elements of the copositive cone*, *Linear Algebra and its Applications* 439 (2013), Issue 6, 1605–1626.
 - [Peter J.C. Dickinson](#), *The Copositive Cone, the Completely Positive Cone and their Generalisations*, PhD thesis, University of Groningen, April 2013.
* Cum Laude distinction (highest distinction possible at the University of Groningen).
12. [Peter J.C. Dickinson](#) and Mirjam Dür, *Linear-time complete positivity detection and decomposition of sparse matrices*, *SIAM Journal on Matrix Analysis and Applications* 33 (2012), Issue 3, 701–720.
13. [Peter J.C. Dickinson](#), *Geometry of the Copositive and Completely Positive Cones*, *Journal of Mathematical Analysis and Applications* 380 (2011), Issue 1, 377–395.
14. [Peter J.C. Dickinson](#), *An Improved Characterisation of the Interior of the Completely Positive Cone*, *Electronic Journal of Linear Algebra* 20 (2010), 723–729.

Presentations: I have given 39 presentations in 12 countries (excluding classes)

2017: 3 presentations (2 in Canada, 1 in Germany).

2016: 2 presentations (1 in Australia, 1 in Netherlands).

2015: 6 presentations (2 in Netherlands, 1 in Austria, 1 in France, 1 in UK, 1 in USA).

2014: 1 presentation (1 in USA).

2011–2013: 27 presentations (11 in Netherlands, 3 in Austria, 3 in Germany, 3 in UK, 2 in Canada, 1 in Italy, 1 in Israel, 1 in USA, 1 in Slovenia, 1 in Portugal).