

Curriculum Vitae Pieter-Jan Pauwelyn

Contact information

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Languages:

Dutch	Native language
English	Good knowledge (writing and speaking)
French	Decent knowledge (writing and speaking)

Education

Ph.D., Applied Economics, Free University Brussels, 2020

Concentrations: Applied Mathematics, Manpower planning

Dissertation: Stochastic matrices: Properties and applications in manpower planning

Dissertation advisors: Prof Marie-Anne Guerry (promotor), Prof Philippe Carette, Prof Vincent Ginis

Master of Sciences in Mathematics, University of Ghent, 2013

Concentration: Mathematics, Mathematical physics, astrophysics

Dissertation: Bosonization in 2D-fieldtheories

Dissertation advisors: Prof David Dudal

Bachelor of Sciences in Mathematics, University of Hasselt, 2011

CVO Step (Center for adult education)

2016, Teaching certificate

Employment History

2014-2020

Free University Brussels, Faculty of Social Sciences & Solvay Business School

Teaching Assistant Mathematics

2020-present

Tilburg University, Tilburg School of Economics and Management, Departement EOR

Docent Statistics and Mathematics.

Research

Publications

- Pauwelyn, PJ, Guerry, M. A. (2020) On perturbations of non-diagonalizable stochastic matrices of order 3. *Statistics & Probability Letters*, 157, <https://doi.org/10.1016/j.spl.2019.108633>
- Pauwelyn, PJ, Guerry, M.A. (2016) Preservation of stochasticity after perturbations (ES Working papers), https://www.vub.be/sites/vub/files/nieuws/users/hsanzmor/pauwelynguerry_positivity_of_perturbations.pdf
- Pauwelyn, PJ, Guerry, M.A. (2021) Perturbations of non-diagonalizable stochastic matrices with preservation of spectral properties, *Linear and Multilinear Algebra*, 1-31. <https://doi.org/10.1080/03081087.2021.1904813>

Under revision

- Pauwelyn, PJ, Guerry, M.A., Markov chain evolution under perturbations.
- Pauwelyn, PJ, Guerry, M.A., On convergence of matrix series and discrepancies in Markov chain evolution.

Teaching Experience

Teaching Assistant, Free University Brussels (BUTO), 2014-2020:

Courses: Mathematics for Business Engineers I, Mathematics for Business Engineers II, Mathematics II for Applied Economics.

Lecturer, Tilburg School of Economics and Management (TiSEM), 2020-present:

Courses: Linear Algebra, Introduction to Analysis and Probability Theory, Analysis 1, Analysis 2, Statistics for Pre-Master, Introduction to Data-Analysis, Improving Society and Mathematics for Pre-Bachelor.

Conferences/Talks

- Pauwelyn, PJ, "Ignoring Non-diagonalizable matrices in social sciences", 4th Stochastic Modeling Techniques and Data Analysis International Conference and Demographic Workshop, 1-4 June 2016, University of Malta, La Valetta, Malta
- Pauwelyn, PJ, "The importance of diagonalizable matrices in manpower planning", Workshop Manpower Planning, 15 September 2017, VUB
- Pauwelyn, PJ, "Neglecting non-diagonalizable matrices in social sciences", MatTriad2017 International Conference on Matrix Analysis and its Applications, 25-29 September 2017, Research and Conference Center, Bedlewo, Poland
- Pauwelyn, PJ, "Evolution of Markov chains under transition matrix perturbation", MatTriad2019 International Conference on Matrix Analysis and its Applications, 8-13 September 2019, Conference Centre of the Czech Academy of Sciences – Chateau Liblice, Liblice, Czech Republic

- Pauwelyn, PJ, “Perturbed Markov chains and cost comparison in manpower planning”, 6th Stochastic Modeling Techniques and Data Analysis International Conference and Demographic Workshop, 2-5 June 2020, Universitat Autònoma de Barcelona, Spain

References:

1. Prof. dr. Marie-Anne Guerry

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2. Prof. dr. Vincent Ginis

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3. Prof. dr. Herbert Hamers

Tilburg School of Economics and Management (TiSEM), Tilburg University
Warandelaan 2, 5037 AB Tilburg
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4. Prof. dr. Jochem De Bresser

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Warandelaan 2, 3010 Elsene
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5. Prof. dr. Wouter Torsin

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