

---

# CURRICULUM VITAE

*Kristiaan H.J. Kerstens*

*May 2024*



---

## 1. *Personal Details:*

- ♦ Place and date of birth: Antwerp (Belgium), March 5<sup>th</sup> 1961.
- ♦ Nationality: Belgian.
- ♦ Married to Kristel Telen.
- ♦ Children: Pieter and Carolien.
- ♦ Home:                      Kerkstraat 123                      Phone/Fax: +32 (0)32 72 18 59  
                                    B-2060 Antwerpen                      Mobile: +32 (0)499 32 81 72  
                                    Belgium                      kristiaan.kerstens@hotmail.com
- ♦ Professional:            CNRS - LEM (UMR 9221)            Phone: +33 (0)3 20 54 58 92 (switchboard)  
                                    IESEG School of Management            Fax: +33 (0)3 20 57 48 55  
                                    3, rue de la Digue                      k.kerstens@ieseg.fr  
                                    F-59800 Lille                      <https://kkerstens.github.io/>  
                                    France

---

## 2. *Summary Profile:*

- ♦ Director of research (= Research professor) at CNRS and Professor at IESEG School of Management in Lille (France).
- ♦ Academic economist with broad teaching and research experience.
- ♦ Familiarity with quantitative management techniques.
- ♦ Administrative responsibilities for research coordination, library and information technologies.
- ♦ Main research specialties: (i) Efficiency measurement (benchmarking) of private and public sector organisations; (ii) Productivity indices and indicators (Total Factor Productivity), (iii) Portfolio optimisation with higher moments; and (iv) Public economics.
- ♦ Visiting positions with teaching (past and present):
  - ♦ EDHEC, Lille (France): MBA program;
  - ♦ Soochow University, Taipei (Taiwan);
  - ♦ Universitat Autònoma de Barcelona, Barcelona (Spain): European Doctoral Program;
  - ♦ Université Charles-de-Gaulle (Lille 3), Lille (France);
  - ♦ Université Louis Pasteur, Strasbourg (France);
  - ♦ Université Catholique Saint Jérôme de Douala, Douala (Cameroun);
  - ♦ University of Leicester, Leicester (UK).
- ♦ International work experience.
- ♦ Flexibility and great sense for teamwork.

- ♦ Basic output statistics:
  - ♦ # refereed articles: 98 (95 international)
  - ♦ # book contributions: 14
  - ♦ # co-authors: 64 (Australia, Belgium, Brazil, China, Czech Republic, Denmark, France, Germany, India, Iran, Italy, Japan, Lithuania, Morocco, Mauritania, Netherlands, Portugal, Spain & USA)
  - ♦ # conference proceedings: 9
  - ♦ # book reviews: 40
  - ♦ # discussion papers: 104 (with revisions: 123)
  - ♦ # conferences: 89
  - ♦ # external seminars: 66
  - ♦ # lectures: 10
  - ♦ # internal seminars: 11
  - ♦ # discussant (19) or session chair (26): 37
  - ♦ # journals with article refereeing: 56
  - ♦ # editors with article refereeing: 107
  - ♦ # PhD and MPhil juries: 29 (report writing: 12, chairman: 5, outside France: 16)
  - ♦ # PhD supervisions or co-supervisions: 7

### 3. *Education and Awards:*

---

- ♦ Licentie Economische Wetenschappen (licentiate in Economics): Katholieke Universiteit Leuven, Academic year 1984-1985.
- ♦ Master of Arts in Economics: Katholieke Universiteit Leuven, Academic year 1985-1986 (specialisation: Public and Quantitative Economics).
- ♦ Licentie Wijsbegeerte (licentiate in Philosophy): Katholieke Universiteit Leuven, Academic year 1986-1987.
- ♦ PhD in Economics: “Nonparametric Analysis of Technical Efficiency: Reference Technologies, Efficiency Measures and their Explanation”, Katholieke Universiteit Brussel (21 November 1994). Currently Katholieke Universiteit Brussel is part of Katholieke Universiteit Leuven. Promotor: Prof. E. Raymaekers (K.U.Brussel); copromotor: Prof. B. De Borger (UFSIA, Antwerp). Committee members: J. Degadt (K.U.Brussel), R. Donckels (K.U.Brussel), C.A.K. Lovell (University of Georgia), S. Perelman (Université de Liège), H. Tulkens (Université Catholique de Louvain), & R. Vertonghen (K.U.Brussel).
- ♦ “Habilitation à diriger des recherches (HDR)”, Université Charles-de-Gaulle (Lille 3) (25 February 1999). Promotor: Prof. J.-P. Boussemart (Université Charles-de-Gaulle). Advisers and committee members: J.-C. Bureau (INRA), M. Dietsch (Université Robert Schuman), & S. Perelman (Université de Liège). Other committee members: J.-B. Lesourd (GREQAM), & J. Mairesse (ENSAE).
- ♦ Laureate of the “Reisbeurzenwedstrijd 1988” (travel grants contest) from the Ministry of the Flemish Community.
- ♦ “Citation of Excellence” (Highest Quality Rating) by ANBAR Electronic Intelligence (now: Emerald Management Reviews) for article A[15] below.
- ♦ “Prime d'excellence scientifique”, CNRS (2010-2013).
- ♦ “Outstanding peer reviewer”, Elsevier (March 2012).
- ♦ “Certificate of Outstanding Contribution in Reviewing”, *European Journal of Operational Research* (October 2016).
- ♦ “Certificate of Outstanding Contribution in Reviewing”, *International Journal of Production Economics* (October 2016).

### 4. *Languages and IT Skills:*

---

- ♦ Mother tongue: Dutch.

- ♦ Fluency in English and French. Good notions of German.
- ♦ PC: Good experience with the following Windows software: GAMS; Limdep; Maple; and Office. Limited experience with a variety of specialised softwares.

##### 5. *Academic and Professional Experience:*

---

- ♦ From January 1997 onwards researcher at LABORES (Laboratoire de Recherches Économiques et Sociales; Unité de Recherche Associée au CNRS n° 362) at the “Université Catholique de Lille” in Lille (France). Responsible for research coordination within LABORES and the “Département d’Économie et de Gestion” (1997-1999). Change in contract: “Chargé de recherche - 1<sup>st</sup> class” (CR1) of CNRS since October 1999 (classified 1<sup>st</sup> for 1 position among 16 candidates); promotion “Directeur de recherche 2<sup>nd</sup> class” (DR2) since October 2006 (classified 2<sup>nd</sup> for 4 positions among 33 candidates); and promotion “Directeur de recherche 1<sup>st</sup> class” (DR1) since October 2011 (classified 2<sup>nd</sup> for 2 positions among 14 candidates).

Member of the “Conseil du LABORES” (1998-2002). Elected member of the “Conseil du LEM” (2015-2020). Member of the “Comité de direction du LEM” (2006-2015). Vice director of LEM (2010-2014). Member of the Research Committee of IESEG (2005-2020). Member of the Extended Research Committee of IESEG (2020- ).

Continuation of research on the non-parametric approach to efficiency and productivity measurement leading to articles A[13 & 15-22, 24-30, 32-35, 37-39, 45, 48-50, 52-56, 59-62, 64-84, 86-90, 92-97] and book contributions B[5-8, 10-11, 13-14]. Also some work on portfolio analysis A[23, 31, 36, 42-44, 46-47, 51, 57-58, 63, 85, 91] and B[12], and marketing A[40-41] and B[9].

Teaching:

- Invited lecturer at the University of Strasbourg (Université Louis Pasteur) for the course “Mesure de la production et efficience dans les services” in the program “Marchés des services en Europe” during the academic years 1997-99.
- Invited lecturer at IESEG (Lille) for the courses “Efficiency and Benchmarking in Banking”, “Applied Optimisation Methods for Managers” and “Multi-Moment Portfolios: An Introduction” during the academic years 1999-16; 2000-16 and 2015-16, respectively.
- Invited lecturer in the MBA program of EDHEC (Lille) for part of the courses “Managerial Economics” and “Decision Making in Business” during the academic years 2000-03 and 2001-03, respectively.
- Invited lecturer at EDHEC (Lille) for the course “Efficiency and Benchmarking in Banking” during the academic years 2001-04 and 2015-16.
- Invited lecturer at the Université de Lille 3 (Charles-de-Gaulle) for part of the course “Recherche Opérationnelle” during the academic year 2001-02.
- Invited lecturer at the European Doctoral Program of the Universitat Autònoma de Barcelona for part of the course “Efficiency and Productivity Analysis in Organisations” during the academic years 2003-04 and 2005-06.
- Guest lectures at the Department of Accounting at Soochow University (Taipei): “Benchmarking in Portfolio Analysis” (2 x 2 hours for day- & evening students); “Frontier Benchmarking: Accounting, Managerial & Regulatory Perspectives” & training course for PhD students and academics “Efficiency and Benchmarking in Banking: Regulatory & Managerial Perspectives” during the academic year 2007-08.
- Invited lecturer in the MBA program of Université Catholique Saint Jérôme de Douala (Douala) for part of the course of “Managerial Economics” during the academic year 2010-11.
- Associate tutor at the School of Management of the University of Leicester (UK) for dissertations in the MSc in Accounting & Finance and the MSc in Finance during the academic years 2009-12 (15, 10 and 12 students in total).

Member of PhD committees: Hong Kong Baptist University (PRC, 2019); Katholieke Universiteit Brussel (BE, 2004); Katholieke Universiteit Leuven (BE, 2001); Macquarie University (AU, 2010); Massey University (NZ, 2015); Universitat Autònoma de Barcelona (ES, 2004 & 2009); Université de Lille (FR, 2004, 2015, 2016 & 2018); Université d'Evry (FR, 2002); Université de Paris II (FR, 2002); Université de Perpignan (FR, 2006, 2007, 2010, 2011 & 2018); Université de la Réunion (FR, 2003); Université Libre de Bruxelles (BE, 2016); Universiteit Antwerpen (BE, 2012); Universiteit Gent (BE, 2012); University of Joensuu (FI, 2008); University of Southern Denmark (DK, 2004); and Wageningen University (NL, 2005 & 2012). We have been reporting (examiner, etc.) on several of these PhD's. MPhil external examiner: Hong Kong Baptist University (PRC, 2013).

Supervision or co-supervision of PhD's:

- Belarouci, Matthieu (2013) *The Relation Between Technical Efficiency and Stock Returns: Evidence from the US Airline Industry (1990-2012)*, Lille, Université de Lille 1 (December 6). Co-supervisor: Prof. Dr. O. Brandouy.
- Epure, Mircea (2010) *Novel Perspectives on Technology-Based Efficiency and Productivity Analyses*, Barcelona, Universitat Autònoma de Barcelona (September 6). Supervisor: Prof. Dr. Diego Prior.
- Jin, Qianying (2020) *Ordinal Classification with Non-parametric Frontier Methods: Overview and New Proposals*, Lille, Université de Lille (October 5). Co-supervisor: Prof. Dr. Z. Zhou.
- Kjærsgaard, Jens (2007) *Multiple Criteria Decision Making in Fisheries Management: Fleet Structure Adjustment, Conservation Aspects and Stake Holder Attitudes*, Esbjerg, University of Southern Denmark (June 22). Supervisor: Prof. Dr. N. Vestergaard. Other co-supervisor: Prof. Dr. H. Frost.
- Mounir, Amine (2010) *On the Use of the Shortage Function in Portfolio Theory*, Brussels, Hogeschool-Universiteit Brussel (June 21). Supervisor: Prof. Dr. I. Van de Woestyne.
- Ould Moulaye Hachem, Bouye Ahmed (2011) *Frontier Estimation of Efficiency and Productivity: Some New Perspectives for Firms and Industry*, Lille, Université de Lille 1 (September 6).
- Ren, Tiantian (2021) *Multi-Time and Multi-Moment Rating and Portfolio Models with Nonparametric Frontier Methods: Overview, New Proposals and Empirical Studies*, Lille, Université de Lille (November 15). Co-supervisors: Prof. Dr. P. Mazza and Z. Zhou.

PhD researcher (visiting):

- Sadeghi, J. (5 July -30 December 2017): PhD Kharazmi University, Iran. Funding: Ministry of Science, Research and Technology, Iran.
- Jin, Q. (12 September 2018 – 31 August 2019): PhD Hunan University, China. Funding: China Scholarship Council, China.
- Ren, T. (3 December 2019 – 30 November 2020): PhD Hunan University, China. Funding: Department of Management Science, Business School, Hunan University, China.
- Chen, X. (1 November 2020 – 30 October 2021): PhD Southeast University, China. Funding: China Scholarship Council, China.

Postdoc researcher (visiting):

- Sadeghi, J. (September -November 2019): PhD Kharazmi University, Iran. Funding: IESEG School of Management.

HDR (Habilitation à diriger des recherches): Advisor of F. Maier-Rigaud (Université de Lille 1, 2013). Member jury of S. Creemers (Université de Lille, 2020); S. Nasini (Université de Lille, 2021); N. Peypoch (Université de Perpignan, 2007); Z. Shen (Université de Lille, 2023); and B. Solonandrasana (Université de Perpignan, 2007). We have been reporting and we have been president of the jury on some of these HDR.

- ♦ From January till December 1996 lecturer at the Department of Economics at "Loughborough University" in Loughborough (UK). This department obtained a 4A rating in the 1996 RAE.

Responsible for the course module: “Computer Applications in Economics II” on linear programming and efficiency measurement in production. Continuation of research on the non-parametric approach to efficiency and productivity measurement leading to articles on the effect of different efficiency measures on a FDH technology and a new method to determine returns to scale A[12 & 14].

- ♦ From February 1995 till December 1995 doctoral researcher of Prof. B. De Borger at the “Studiecentrum voor Economisch en Sociaal Onderzoek” (SESO) of the “Universitaire Faculteiten Sint-Ignatius te Antwerpen” (UFSIA) at Antwerp. The contract research under the “Impulsprogram Transport and Mobility” aimed at studying the comparative advantages of road pricing policies and simulating scenarios for implementing it in Belgium. It resulted in a contribution to a book (B[4]). In addition, articles A[9-11] have been finalised on the robustness of municipal efficiency measurement under different technologies respectively different efficiency measures, and on the determinants of French urban transit efficiency.
- ♦ From August 1994 till December 1994 consultant at “European Studies and Research” in Brussels. Tasks: contribute to the development of simulation software for macro-economic models in Windows (testing, writing a manual, etc.).
- ♦ From July 1994 till August 1994 consultant at “Policy Research Corporation N.V.” in Antwerp (Wilrijk). Tasks: contribute to a traffic forecast for the port of Ghent and to an economic impact study of the Dutch maritime sector (discussion of the maritime policies in the Scandinavian countries, and safety and regulation issues).
- ♦ From October 1990 till June 1994 teaching assistant of Prof. E. Raymaekers at the “Katholieke Universiteit Brussel” at Brussels. Main tasks: teaching in the evening program, exercises in the second year courses of microeconomics and informatics (Lotus), teaching the first year macroeconomics course. Research on the non-parametric approach to efficiency measurement in production yields articles on municipalities (A[3]), Belgian public sector efficiency (B[3] & A[7]), on US banks (A[6] & C[2]), and on methodological issues (A[8] & C[3]).
- ♦ From October 1989 till October 1990 research assistant of the professors B. De Borger, W. Moesen, and J. Vanneste at the “Studiecentrum voor Economisch en Sociaal Onderzoek” (SESO) of the “Universitaire Faculteiten Sint-Ignatius te Antwerpen” (UFSIA) at Antwerp. Topic of the FKFO contract research: “Evaluation of the Quantity and Quality of Local Public Goods: Municipal Finance in Crisis”. This included research on grant mechanisms (article A[1]) and on the efficiency of municipal service provision (articles A[4-5]).
- ♦ From October 1986 till September 1989 teaching assistant of Prof. F. Spinnewijn at the “Centrum voor Economische Studien” (CES) of the “Katholieke Universiteit Leuven” at Louvain. Contract one year interrupted for conscription. Main tasks: third year seminar on social security, supervision of third and fourth year students writing their Licentieverhandeling (licentiate thesis), partly rewriting the courses in mathematical economics for third and fourth year and MA students. Research on the social cost of conscription leading to article A[2]. Methodological research on economics resulting in paper C[1] and article B[1].

## 6. *Scientific Activities:*

---

### 6.1. Publications:

#### 6.1.1. Citations and Rankings:

Statistics obtained on 29 January 2024 based on "Publish or Perish" ([www.harzing.com/pop.htm](http://www.harzing.com/pop.htm)).

|              |        |
|--------------|--------|
| Papers:      | 228    |
| Citations:   | 5767   |
| Cites/paper: | 25.29  |
| Cites/year:  | 169.62 |
| h-index:     | 37     |

Briec & Kerstens (2009) *Journal of Optimization Theory and Applications* among 5 most cited articles in 2009-2011.

Kerstens & Van de Woestyne (2011) *Journal of the Operational Research Society* among 10 big impact articles from the 2010 and 2011 volumes.

#### REPEC:

Top 20% of economic researchers in France ([ideas.repec.org/top/top.france.html](https://ideas.repec.org/top/top.france.html)).

Top 12.5% of economic researchers in the European Union ([ideas.repec.org/top/top.eu.html#authors](https://ideas.repec.org/top/top.eu.html#authors)).

Top 10% of economic researchers in the world ([ideas.repec.org/top/top.person.all.html](https://ideas.repec.org/top/top.person.all.html))

Top 10% economic researchers in the field of Efficiency and Productivity ([ideas.repec.org/top/top.eff.html#authors](https://ideas.repec.org/top/top.eff.html#authors))

#### 6.1.2. Articles in Refereed Journals:

[98] Jin, Q., K. Kerstens, I. Van de Woestyne (2024) Convex and Nonconvex Nonparametric Frontier-based Classification Methods for Anomaly Detection, *OR Spectrum*, forthcoming.

[97] Shen, Z., K. Kerstens, T. Baležentis (2024) An Environmental Luenberger-Hicks-Moorsteen Total Factor Productivity Indicator: Empirical Analysis Considering Undesirable Outputs either as Inputs or Outputs, and Attention for Infeasibilities, *Annals of Operations Research*, forthcoming.

[96] Shen, Z., K. Kerstens, V. Valdmanis, S. Wang (2024) Evaluation and Optimization of Hospital System in Chinese Provinces: Does Mortality Matter?, *RAIRO - Operations Research*, 58(1), p. 971-987.

[95] Kerstens, K., J. Sadeghi, I. Van de Woestyne, J. Walden (2024) Short-Run Johansen Frontier-Based Industry Models: Methodological Refinements and Empirical Illustration on Fisheries, *Journal of Productivity Analysis*, 61(1), p. 47-62.

[94] Kerstens, K., J. Sadeghi (2024) Plant Capacity Notions: Review, New Definitions, and Existence Results at Firm and Industry Levels, *International Journal of Production Research*, 62(3), p. 1017-1040.

[93] Baležentis, T., K. Kerstens, Z. Shen (2024) Economic and Environmental Decomposition of Luenberger-Hicks-Moorsteen Total Factor Productivity Indicator: Empirical Analysis of Chinese Textile Firms with a Focus on Reporting Infeasibilities and Questioning Convexity, *IEEE Transactions on Engineering Management*, 71, p. 2772-2785.

[92] Chen, X., K. Kerstens, M. Tsionas (2024) Does Productivity Change at All in Swedish District Courts? Empirical Analysis Focusing on Horizontal Mergers, *Socio-Economic Planning Sciences*, 91, 101787 (12 p.).

[91] Jin, Q., A. Basso, S. Funari, K. Kerstens, I. Van de Woestyne (2024) Evaluating Different Groups of Mutual Funds Using a Metafrontier Approach: Ethical vs. Non-Ethical Funds, *European Journal of Operational Research*, 312(3), p. 1134-1145.

[90] Deng, H., G. Bai, K. Kerstens, Z. Shen (2023) Comparing Green Productivity under Convex and Nonconvex Technologies: Which is a Robust Approach Consistent with Energy Structure?, *Managerial and Decision Economics*, 44(8), p. 4377-4394.

[89] Ang, F., K. Kerstens, J. Sadeghi (2023) Energy Productivity and Greenhouse Gas Emission Intensity in Dutch Dairy Farms: A Hicks-Moorsteen By-Production Approach under Nonconvexity and Convexity with Equivalence Results, *Journal of Agricultural Economics*, 74(2), p. 492-509.

[88] Chen, X., K. Kerstens (2023) Evaluating Horizontal Mergers in Swedish District Courts Using Plant Capacity Concepts: With a Focus on Nonconvexity, *RAIRO - Operations Research*, 57(1), p. 219-236.

[87] Briec, W., A. Dumas, K. Kerstens, A. Stenger (2022) Generalised Commensurability Properties of Efficiency Measures: Implications for Productivity Indicators, *European Journal of Operational Research*, 303(3), p. 1481-1492.

- [86] Kerstens, K., J. Sadeghi, I. Van de Woestyne, L. Zhang (2022) Malmquist Productivity Indices and Plant Capacity Utilisation: New Proposals and Empirical Application, *Annals of Operations Research*, 315(1), p. 221–250.
- [85] Kerstens, K., P. Mazza, T. Ren, I. Van de Woestyne (2022) Multi-Time and Multi-Moment Nonparametric Frontier-Based Fund Rating: Proposal and Buy-and-Hold Backtesting Strategy, *Omega*, 113, 102718 (14 p.).
- [84] Kerstens, K., J. Sadeghi, M. Toloo, I. Van de Woestyne (2022) Procedures for Ranking Technical and Cost Efficient Units: With a Focus on Nonconvexity, *European Journal of Operational Research*, 300(1), p. 269–281.
- [83] Kerstens, K., I. Van de Woestyne (2021) Cost Functions are Nonconvex in the Outputs when the Technology is Nonconvex: Convexification is Not Harmless, *Annals of Operations Research*, 305(1–2), p. 81–106.
- [82] Kerstens, K., Z. Shen (2021) Using COVID-19 Mortality to Select Among Hospital Plant Capacity Models: An Exploratory Empirical Application to Hubei Province, *Technological Forecasting and Social Change*, 166, 120535 (10 p.).
- [81] Briec, W., L. Cavaignac, K. Kerstens (2020) Input Efficiency Measures: A Generalised, Encompassing Formulation, *Operations Research*, 68(6), p. 1836–1849.
- [80] Kerstens, K., J. Sadeghi, I. Van de Woestyne (2020) Plant Capacity Notions in a Non-parametric Framework: A Brief Review and New Graph of Non-Oriented Plant Capacities, *Annals of Operations Research*, 288(2), p. 837–860.
- [79] Jin, Q., K. Kerstens, I. Van de Woestyne (2020) Metafrontier Productivity Indices: Questioning the Common Convexification Strategy, *European Journal of Operational Research*, 283(2), p. 737–747.
- [78] Daraio, C., K. Kerstens, T. Nepomuceno, R. Sickles (2020) Empirical Surveys of Frontier Applications: A Meta-Review, *International Transactions in Operational Research*, 27(2), p. 709–738.
- [77] Kerstens, K., I. Van de Woestyne (2019) The Remarkable Incidence of Congestion in Production: A Review, Empirical Illustration, and Research Agenda, *Data Envelopment Analysis Journal*, 4(2), p. 109–147.
- [76] Kerstens, K., J. Sadeghi, I. Van de Woestyne (2019) Plant Capacity and Attainability: Exploration and Remedies, *Operations Research*, 67(4), p. 1135–1149.
- [75] Kerstens, K., J. Sadeghi, I. Van de Woestyne (2019) Convex and Nonconvex Input-Oriented Technical and Economic Capacity Measures: An Empirical Comparison, *European Journal of Operational Research*, 276(2), p. 699–709.
- [74] Kerstens, K., C. O'Donnell, I. Van de Woestyne (2019) Metatechnology Frontier and Convexity: A Restatement, *European Journal of Operational Research*, 275(2), p. 780–792.
- [73] Cesaroni, G., K. Kerstens, I. Van de Woestyne (2019) Short- and Long-Run Plant Capacity Notions: Definitions and Comparison, *European Journal of Operational Research*, 275(1), p. 387–397.
- [72] Daraio, C., K. Kerstens, T. Nepomuceno, R. Sickles (2019) Productivity and Efficiency Analysis Software: An Exploratory Bibliographical Survey of the Options, *Journal of Economic Surveys*, 33(1), p. 85–100.
- [71] Kerstens, K., I. Van de Woestyne (2018) Enumeration Algorithms for FDH Directional Distance Functions under Different Returns to Scale Assumptions, *Annals of Operations Research*, 271(2), p. 1067–1078.
- [70] Briec, W., K. Kerstens, D. Prior, I. Van de Woestyne (2018) Testing General and Special Färe-Primont Indices: A Proposal for Public and Private Sector Synthetic Indices of European Regional Expenditures and Tourism, *European Journal of Operational Research*, 271(2), p. 756–768.
- [69] Briec, W., K. Kerstens, I. Van de Woestyne (2018) Hypercongestion in Production Correspondences: An Empirical Exploration, *Applied Economics*, 50(27), p. 2938–2956.

- [68] Kerstens, K., Z. Shen, I. Van de Woestyne (2018) Comparing Luenberger and Luenberger-Hicks-Moorsteen Productivity Indicators: How Well is Total Factor Productivity Approximated?, *International Journal of Production Economics*, 195, p. 311–318.
- [67] Cesaroni, G., K. Kerstens, I. Van de Woestyne (2017) Estimating Scale Economies in Non-Convex Production Models, *Journal of the Operational Research Society*, 68(11), p. 1442–1451.
- [66] Cesaroni, G., K. Kerstens, I. Van de Woestyne (2017) A New Input-Oriented Plant Capacity Notion: Definition and Empirical Comparison, *Pacific Economic Review*, 22(4), p. 720–739.
- [65] Cesaroni, G., K. Kerstens, I. Van de Woestyne (2017) Global and Local Scale Characteristics in Convex and Nonconvex Nonparametric Technologies: A First Empirical Exploration, *European Journal of Operational Research*, 259(2), p. 576–586.
- [64] Briec, W., K. Kerstens, I. Van de Woestyne (2016) Congestion in Production Correspondences, *Journal of Economics*, 119(1), p. 65–90.
- [63] Brandouy, O., K. Kerstens, I. Van de Woestyne (2015) Frontier-based vs. Traditional Mutual Fund Ratings: A First Backtesting Analysis, *European Journal of Operational Research*, 242(1), p. 332–342.
- [62] Briec, W., K. Kerstens, I. Van de Woestyne (2014) Nonparametric Cost and Revenue Functions under Constant Economies of Scale: An Enumeration Approach for the Single Output or Input Case, *International Transactions in Operational Research*, 21(4), p. 619–625.
- [61] Kerstens, K., I. Van de Woestyne (2014) A Note on a Variant of Radial Measure Capable of Dealing with Negative Inputs and Outputs in DEA, *European Journal of Operational Research*, 234(1), p. 341–342.
- [60] Kerstens, K., I. Van de Woestyne (2014) Solution Methods for Nonconvex Free Disposal Hull Models: A Review and Some Critical Comments, *Asia-Pacific Journal of Operational Research*, 31(1), 1450010 (13 p.).
- [59] Kerstens, K., I. Van de Woestyne (2014) Comparing Malmquist and Hicks-Moorsteen Productivity Indices: Exploring the Impact of Unbalanced vs. Balanced Panel Data, *European Journal of Operational Research*, 233(3), p. 749–758.
- [58] Briec, W., K. Kerstens, I. Van de Woestyne (2013) Portfolio Selection with Skewness: A Comparison of Methods and a Generalized One Fund Result, *European Journal of Operational Research*, 230(2), p. 412–421.
- [57] Kerstens, K., A. Mounir, I. Van de Woestyne (2012) Benchmarking Mean-Variance Portfolios Using a Shortage Function: The Choice of Direction Vector Affects Rankings!, *Journal of the Operational Research Society*, 63(9), p. 1199–1212.
- [56] Kerstens, K., S. Managi (2012) Total Factor Productivity Growth and Convergence in the Petroleum Industry: Empirical Analysis Testing for Convexity, *International Journal of Production Economics*, 139(1), p. 196–206.
- [55] Briec, W., K. Kerstens, N. Peypoch (2012) Exact Relations between Four Definitions of Productivity Indices and Indicators, *Bulletin of Economic Research*, 64(2), p. 265–274.
- [54] Sahoo, B.K., K. Kerstens, K. Tone (2012) Returns to Growth in a Non-Parametric DEA Approach, *International Transactions in Operational Research*, 19(3), p. 463–486.
- [53] De Borger, B., K. Kerstens, D. Prior, I. Van de Woestyne (2012) Static Efficiency Decompositions and Capacity Utilisation: Integrating Technical and Economic Capacity Notions, *Applied Economics*, 44(31), p. 4125–4141. (2013) Erratum, 45(24), p. 3529.
- [52] Briec, W., K. Kerstens (2011) The Hicks-Moorsteen Productivity Index Satisfies the Determinateness Axiom, *Manchester School*, 79(4), p. 765–775.
- [51] Kerstens, K., I. Van de Woestyne (2011) Negative Data in DEA: A Simple Proportional Distance Function Approach, *Journal of the Operational Research Society*, 62(7), p. 1413–1419.



- [50] Epure, M., K. Kerstens, D. Prior (2011) Technology-Based Total Factor Productivity and Benchmarking: New Proposals and an Application, *Omega*, 39(6), p. 608–619.
- [49] Briec, W., L. Cavaignac, K. Kerstens (2011) Directional Measurement of Technical Efficiency of Production: An Axiomatic Approach, *Economic Modelling*, 28(3), p. 775-781.
- [48] Epure, M., K. Kerstens, D. Prior (2011) Bank Productivity and Performance Groups: A Decomposition Approach Based upon the Luenberger Productivity Indicator, *European Journal of Operational Research*, 211(3), p. 630-641.
- [47] Kerstens, K., A. Mounir, I. Van de Woestyne (2011) Non-Parametric Frontier Estimates of Mutual Fund Performance Using C- and L-Moments: Some Specification Tests, *Journal of Banking & Finance*, 35(5), p. 1190-1201.
- [46] Kerstens, K., A. Mounir, I. Van de Woestyne (2011) Geometric Representation of the Mean-Variance-Skewness Portfolio Frontier Based upon the Shortage Function, *European Journal of Operational Research*, 210(1), p. 81-94.
- [45] Briec, W., K. Kerstens, D. Prior, I. Van de Woestyne (2010) Tangency Capacity Notions Based upon the Profit and Cost Functions: A Non-Parametric Approach and a Comparison, *Economic Modelling*, 27(5), p. 1156-1166.
- [44] Brandouy, O., K. Kerstens, I. Van de Woestyne (2010) Exploring Bi-Criteria versus Multi-Dimensional Lower Partial Moment Portfolio Models, *International Journal of Technology, Modelling and Management*, 1(1), p. 25-39.
- [43] Brandouy, O., W. Briec, K. Kerstens, I. Van de Woestyne (2010) Portfolio Performance Gauging in Discrete Time Using a Luenberger Productivity Indicator, *Journal of Banking & Finance*, 34(8), p. 1899-1910.
- [42] Briec, W., K. Kerstens (2010) Portfolio Selection in Multidimensional General and Partial Moment Space, *Journal of Economic Dynamics and Control*, 34(4), p. 636–656.
- [41] Chumpitaz, R., K. Kerstens, N. Paparoidamis, M. Staat (2010) Comparing Efficiency across Markets: An Extension and Critique of the Zhang and Bartels (1998) Methodology, *European Journal of Operational Research*, 205(3), p. 719-728.
- [40] Chumpitaz, R., K. Kerstens, N. Paparoidamis, M. Staat (2010) Hedonic Price Function Estimation in Economics and Marketing: Revisiting Lancaster’s Issue of “Noncombinable” Goods, *Annals of Operations Research*, 173(1), p. 145-161.
- [39] Kjærsgaard, J., N. Vestergaard, K. Kerstens (2009) Ecological Benchmarking to Explore Alternative Fishing Schemes to Protect Endangered Species by Substitution: The Danish Demersal Fishery in the North Sea, *Environmental and Resource Economics*, 43(4), p. 573-590.
- [38] Briec, W., K. Kerstens (2009) The Luenberger Productivity Indicator: An Economic Specification Leading to Infeasibilities, *Economic Modelling*, 26(3), p. 597-600.
- [37] Briec, W., K. Kerstens (2009) Infeasibilities and Directional Distance Functions: With Application to the Determinateness of the Luenberger Productivity Indicator, *Journal of Optimization Theory and Applications*, 141(1), p. 55-73.
- [36] Briec, W., K. Kerstens (2009) Multi-Horizon Markowitz Portfolio Performance Appraisals: A General Approach, *Omega*, 37(1), p. 50-62.
- [35] Blancard, S., J.-P. Boussemart, W. Briec, K. Kerstens (2008) Technology Adoption in French Agriculture and the Role of Financial Constraints, *Bulletin of the University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Horticulture*, 65(2), p. 17-29.
- [34] De Borger, B., K. Kerstens, M. Staat (2008) Transit Costs and Cost Efficiency: Bootstrapping Non-Parametric Frontiers, *Research in Transportation Economics*, 23(1), p. 53-64. (2009) Erratum, 25(1), p. 67.

- [33] Stefanou, S.E., K. Kerstens (2008) Applied Production Analysis Unveiled in Open Peer Review: Introductory Remarks, *Journal of Productivity Analysis*, 30(1), p. 1-6. Introduction to special issue: "Basic Modeling Issues in Applied Production Analysis".
- [32] Grifell-Tatjé, E., K. Kerstens (2008) Incentive Regulation and the Role of Convexity in Benchmarking Electricity Distribution: Economists versus Engineers, *Annals of Public and Cooperative Economics*, 79(2), p. 227-248.
- [31] Briec, W., K. Kerstens, O. Jokung (2007) Mean-Variance-Skewness Portfolio Performance Gauging: A General Shortage Function and Dual Approach, *Management Science*, 53(1), p. 135-149.
- [30] Kerstens, K., N. Vestergaard, D. Squires (2006) A Short-Run Johansen Industry Model for Common-Pool Resources: Planning a Fisheries' Industrial Capacity to Curb Overfishing, *European Review of Agricultural Economics*, 33(3), p. 361-389.
- [29] Blancard, S., J.-P. Boussemart, W. Briec, K. Kerstens (2006) Short- and Long-Run Credit Constraints in French Agriculture: A Directional Distance Function Framework Using Expenditure-Constrained Profit Functions, *American Journal of Agricultural Economics*, 88(2), p. 351-364.
- [28] Briec, W., K. Kerstens (2006) Input, Output and Graph Technical Efficiency Measures on Non-Convex FDH Models with Various Scaling Laws: An Integrated Approach Based upon Implicit Enumeration Algorithms, *TOP*, 14(1), p. 135-166.
- [27] Briec, W., C. Comes, K. Kerstens (2006) Temporal Technical and Profit Efficiency Measurement: Definitions, Duality and Aggregation Results, *International Journal of Production Economics*, 103(1), p. 48-63.
- [26] Kerstens, K., D. Squires, N. Vestergaard (2005) Methodological Reflections on the Short-Run Johansen Industry Model in Relation to Capacity Management, *Marine Resource Economics*, 20(4), p. 425-443.
- [25] Briec, W., K. Kerstens (2004) A Luenberger-Hicks-Moorsteen Productivity Indicator: Its Relation to the Hicks-Moorsteen Productivity Index and the Luenberger Productivity Indicator, *Economic Theory*, 23(4), p. 925-939.
- [24] Briec, W., K. Kerstens, P. Vanden Eeckaut (2004) Non-convex Technologies and Cost Functions: Definitions, Duality and Nonparametric Tests of Convexity, *Journal of Economics*, 81(2), p. 155-192. (2006) Erratum, 87(3), p. 307-308.
- [23] Briec, W., K. Kerstens, J.-B. Lesourd (2004) Single Period Markowitz Portfolio Selection, Performance Gauging and Duality: A Variation on the Luenberger Shortage Function, *Journal of Optimization Theory and Applications*, 120(1), p. 1-27.
- [22] Blancard, S., J.-P. Boussemart, K. Kerstens (2003) L'influence des contraintes de financement de court terme sur le profit des exploitations agricoles: Une approche non paramétrique, *Économie et Prévision*, 159, p. 71-81. (The Influence of Financing Constraints on the Short-Run Profits of Farms: A Non-Parametric Approach)
- [21] Boussemart, J.-P., W. Briec, K. Kerstens, J.-C. Poutineau (2003) Luenberger and Malmquist Productivity Indices: Theoretical Comparisons and Empirical Illustration, *Bulletin of Economic Research*, 55(4), p. 391-405.
- [20] De Borger, B., K. Kerstens, Á. Costa (2002) Public Transit Performance: What Does One Learn From Frontier Studies?, *Transport Reviews*, 22(1), p. 1-38.
- [19] Briec, W., K. Kerstens, H. Leleu, P. Vanden Eeckaut (2000) Returns to Scale on Nonparametric Deterministic Technologies: Simplifying Goodness-of-Fit Methods Using Operations on Technologies, *Journal of Productivity Analysis*, 14(3), p. 267-274.
- [18] De Borger, B., K. Kerstens (2000) The Malmquist Productivity Index and Plant Capacity Utilization, *Scandinavian Journal of Economics*, 102(2), p. 303-310.

- [17] Kerstens, K. (1999) Decomposing Technical Efficiency and Effectiveness of French Urban Transport, *Annales d'Économie et de Statistique*, (54), p. 129-155.
- [16] Dervaux, B., K. Kerstens, H. Leleu (1999) Rationalisation de l'offre de soins en chirurgie: Réduction des surcapacités et réallocation sectorielle, *Revue Économique*, 50(3), p. 645-655. (Rationalisation of Surgical Supply: Excess Capacities and Industry Reallocations)
- [15] Kerstens, K., P. Vanden Eeckaut (1999) Estimating Returns to Scale Using Nonparametric Deterministic Technologies: A New Method Based on Goodness-of-Fit, *European Journal of Operational Research*, 113(1), p. 206-214.
- [14] Kerstens, K., P. Vanden Eeckaut (1999) A New Criterion for Technical Efficiency Measures: Non-Monotonicity Across Dimensions Axioms, *Managerial and Decision Economics*, 20(1), p. 45-59.
- [13] Dervaux, B., K. Kerstens, P. Vanden Eeckaut (1998) Radial and Nonradial Static Efficiency Decompositions: A Focus On Congestion Measurement, *Transportation Research: Part B: Methodological*, 32(5), p. 299-312.
- [12] De Borger, B., G. Ferrier, K. Kerstens (1998) The Choice of a Technical Efficiency Measure on the Free Disposal Hull Reference Technology: A Comparison using US Banking Data, *European Journal of Operational Research*, 105(3), p. 427-446.
- [11] Kerstens, K. (1996) Technical Efficiency Measurement and Explanation of French Urban Transit Companies, *Transportation Research: Part A: Policy and Practice*, 30(6), p. 431-452.
- [10] De Borger, B., K. Kerstens (1996) Cost Efficiency of Belgian Local Governments: A Comparative Analysis of FDH, DEA, and Econometric Approaches, *Regional Science and Urban Economics*, 26(2), p. 145-170.
- [9] De Borger, B., K. Kerstens (1996) Radial and Nonradial Measures of Technical Efficiency: An Empirical Illustration for Belgian Local Governments using an FDH Reference Technology, *Journal of Productivity Analysis*, 7(1), p. 41-62.
- [8] Kerstens, K., P. Vanden Eeckaut (1995) The Economic Cost of Subsidy-Induced Technical Inefficiency: A Methodological Postscript, *International Journal of Transport Economics*, 22(2), p. 225-229.
- [7] De Borger, B., K. Kerstens (1995) Produktiviteit en Efficiëntie in de Belgische Publieke Sector: Situeren en Resultaten van Recent Empirisch Onderzoek, *Tijdschrift voor Economie en Management*, 40(2), p. 101-131. (Productivity and efficiency in the Belgian public sector: Concepts and results of recent empirical research). Enlarged version of the article: B [3].
- [6] Ferrier, G., K. Kerstens, P. Vanden Eeckaut (1994) Radial and Nonradial Technical Efficiency Measures on a DEA Reference Technology: A Comparison using US Banking Data, *Recherches Économiques de Louvain*, 60(4), p. 449-479.
- [5] De Borger, B., K. Kerstens, W. Moesen, J. Vanneste (1994) A Non-Parametric Free Disposal Hull (FDH) Approach to Technical Efficiency: An Illustration of Radial and Graph Efficiency Measures and Some Sensitivity Results, *Swiss Journal of Economics and Statistics*, 130(4), p. 647-667.
- [4] De Borger, B., K. Kerstens, W. Moesen, J. Vanneste (1994) Explaining Differences in Productive Efficiency: An Application to Belgian Municipalities, *Public Choice*, 80(3-4), p. 339-358.
- [3] De Borger, B., K. Kerstens (1993) Technische Efficiëntie in de Gemeentelijke Voorzieningen, *Economisch en Sociaal Tijdschrift*, 47(4), p. 665-690. (Technical Efficiency in Municipal Services).
- [2] Kerstens, K., E. Meyermans (1993) The Draft versus an All-Volunteer Force: Issues of Efficiency and Equity in the Belgian Draft, *Defence Economics*, 4(3), p. 271-284.
- [1] De Borger, B., K. Kerstens, W. Moesen, J. Vanneste (1990) Efficiency and Equity in Block Grant Design: Simulating some Alternatives for Flemish Municipalities, *Cahiers Économiques de Bruxelles*, 32(128), p. 399-421.

### 6.1.3. Chapters in Edited Books:

- [14] Kerstens, K., J. Krüger, Z. Shen (2022) Localized Technological Change, in: C. Antonelli (ed) *Elgar Encyclopedia on the Economics of Knowledge and Innovation*, Edward Elgar, Cheltenham, p. 333-341.
- [13] Brieu, W., K. Kerstens, I. Van de Woestyne (2022) Nonconvexity in Production and Cost Functions: An Exploratory and Selective Review, in: S.C. Ray, R. Chambers, S. Kumbhakar (eds) *Handbook of Production Economics*, Vol. 2, Singapore, Springer, p. 721-754.
- [12] Brandouy, O., K. Kerstens, I. Van de Woestyne (2013) Backtesting Superfund Portfolio Strategies Based on Frontier-Based Mutual Fund Ratings, in: F. Pasiouras (ed) *Efficiency and Productivity Growth: Modelling in the Financial Services Industry*, New York, Wiley, p. 135-170.
- [11] Kerstens, K., B.A. Moulaye Hachem, I. Van De Woestyne, N. Vestergaard (2010) Optimal Capacity Utilization and Reallocation in a German Bank Branch Network: Exploring Some Strategic Scenarios, in: A. Tavidze (ed) *Progress in Economics Research (Volume 16)*, New York, Nova Science, p. 35-61.
- [10] De Borger, B., K. Kerstens (2008) The Performance of Bus-Transit Operators, in: D.A. Hensher, K.J. Button (eds) *Handbook of Transport Modelling*, 2nd edition, Amsterdam, Elsevier, p. 693-714.
- [9] Chumpitaz, R., K. Kerstens, N. Paparoidamis (2006) Marketingperformance - Von ein- zu multidimensionalen und von Durchschnitts- zu Frontier-Konzepten, in: H. Bauer, M. Staat, M. Hammerschmidt (eds) *Marketing-Effizienz: Messung und Steuerung mit der DEA – Konzept und Einsatz in der Praxis*, München, Verlag Franz Vahlen, p. 3-30. (Performance in Marketing: From Uni- to Multi-Dimensional and from Function to Frontier Concepts).
- [8] De Borger, B., K. Kerstens (2000) The Performance of Bus Transit Operators, in: D.A. Hensher, K.J. Button (eds) *Handbook of Transport Modelling*, Amsterdam, Pergamon, p. 577-595.
- [7] De Borger, B., K. Kerstens (2000) What Is Known about Municipal Efficiency? The Belgian Case and Beyond, in: J.L.T. Blank (ed.) *Public Provision and Performance: Contributions from Efficiency and Productivity Measurement*, Amsterdam, Elsevier, p. 299-330.
- [6] Dervaux, B., K. Kerstens, H. Leleu (2000) Remediating Excess Capacities in French Surgery Units by Industry Reallocations: The Scope for Short and Long Term Improvements in Plant Capacity Utilization, in: J.L.T. Blank (ed) *Public Provision and Performance: Contributions from Efficiency and Productivity Measurement*, Amsterdam, Elsevier, p. 121-146.
- [5] Kerstens, K., P. Vanden Eeckaut (1999) Décomposition de l'efficacité technique: Illustration sur base des technologies FDH et DEA, in: P.-Y. Badiillo, J. C. Paradi (eds) *La méthode DEA : analyse des performances*, Paris, Hermes Science, p. 101-121.
- [4] De Borger, B., K. Kerstens, K. Van Dender (1997) Instrumenten voor een Transportbeleid, in: B. De Borger, S. Proost (eds) *Mobiliteit: De Juiste Prijs*, Leuven, Garant, p. 81-124. (Instruments for a Transport Policy).
- [3] De Borger, B., K. Kerstens (1994) Produktiviteit en Efficiëntie in de Belgische Publieke Sector, in: H. de Groot, C.G.M. van Oosteren (eds) *De Toekomst van de Publieke Sector*, 's-Gravenhage, VUGA, p. 137-155. (Productivity and Efficiency in the Belgian Public Sector).
- [2] De Borger, B., K. Kerstens, W. Moesen, J. Vanneste (1992) Efficienza e Equità nella Costruzione di un Sistema di Sussidi: Alcune Simulazioni sulle Municipalità Fiamminghe, in: G. Pola (ed) *Perequazione e Finanza Locale: Esperienze Europee a Confronto*, Bologna, Società editrice il Mulino, p. 413-439. Italian translation of A [1].
- [1] Kerstens, K. (1988) Rationele Verklaringsmodellen in de Sociale Wetenschappen en in de Ethiek: of over het zich Uitbreidende Domein van de Economische Wetenschap, in: H. Berghs, W. Thijs (eds) *Congresbundel Filosofiedag Antwerpen 1988*, Delft, Eburon, p. 23-28. (Rational Choice Models in the Social Sciences and in Ethics: Or on the Expanding Domain of Economic Science).

6.1.4. Reports (only non-published ones) and Papers under Review or Development:

- [104] Mehdiloo, M., J. Sadeghi, K. Kerstens (2024) Top Down Axiomatic Modeling of Metatechnologies and Evaluating Directional Economic Efficiency, Lille, IESEG School of Management (IESEG Working Paper Series 2024-EQM-03), 34 pp.
- [9] Delnava, H., K. Kerstens, T. Kuosmanen, Z. Shen (2024) Semi-parametric Estimation of Convex and Nonconvex By-Production Technologies, Lille, IESEG School of Management (IESEG Working Paper Series 2024-EQM-02), 28 pp.
- [8] Shen, Z., Y. Yang, K. Kerstens, H. Deng (2022) Global and Local Technological Changes with Environmental Factors: Analysis of the Agricultural Sector in Developing Economies, Lille, IESEG School of Management (IESEG Working Paper Series 2022-EQM-03), 38 pp.
- [7] Chen, X., K. Kerstens, Q. Zhu (2021) Exploring Horizontal Mergers in Swedish District Courts Using Convex and Nonconvex Technologies: Usefulness of a Conservative Approach, Lille, IESEG School of Management (Working paper 2021-EQM-05), 30 pp.
- [6] Cesaroni, G., K. Kerstens, I. Van De Woestyne (2020) The Shape of Ray Average Cost and Its Role in Multioutput Scale Economies: Some Generalisations, Lille, IESEG School of Management (Working paper 2020-EQM-03), 39 pp.
- [5] Boussemart, J.-P., W. Briec, K. Kerstens (2003) Bennet Profit Function and Luenberger Productivity Indicators: Linking Both Indicators, Their Decompositions and Observed and Shadow Prices, Lille, Université Catholique de Lille (LABORES: Document de travail 2003-04).
- [4] Dervaux, B., K. Kerstens, H. Leleu, B. Colladon, B. Vincke (1998) The Performance of Surgery Units in French Hospitals: Exploring Efficiency and Capacity, Lille, Université Catholique de Lille (LABORES: Document de travail 98-07).
- [3] De Borger, B., R. Goudriaan, K. Kerstens, P. Vanden Eeckaut (2001) Productivity Growth in Public Libraries: The Role of Deregulation and Socio-Economic Variables, Université Catholique de Lille (LABORES: mimeo).
- [2] Kerstens, K., P. Vanden Eeckaut (1995) Technical Efficiency Measures on DEA and FDH: A Reconsideration of the Axiomatic Literature, Louvain-la-Neuve, UCL (CORE Discussion Paper 9513).
- [1] Kerstens, K. (1989) Voorbij het Utilitarisme: A. Sen over Rechtvaardigheid en Autonomie, Antwerpen, UFSIA (EMC-werkdocument 19). (Beyond Utilitarianism: A. Sen on justice and autonomy).

6.1.5. Book Reviews:

About thirty book reviews in *Economisch en Sociaal Tijdschrift*, *Kyklos*, and in *Tijdschrift voor Filosofie*.

6.2. Recent Lectures, Seminars and Conferences (2019-2023):

6.2.1. Seminars:

- 23 January 2020: Paris (Leonard de Vinci Business School (EMLV)) seminar: Kerstens, K., C. O'Donnell, I. Van de Woestyne "Cost Metafrontiers are Nonconvex in the Outputs since the Metafrontier is Nonconvex: The Price of a Convexification Strategy".
- 15 June 2020: Ardabil (University of Mohaghegh Ardabili, International Relations Office) seminar (webinar): "COVID-19: Reflections of a European Academic Economist" and "Using COVID-19 Mortality to Select Among Hospital Plant Capacity Models: An Empirical Application to the Hubei Province".
- 19 December 2022: Nanjing (Nanjing University of Information Science and Technology, School of Management Science and Engineering) seminar (webinar): Kerstens, K., C. O'Donnell, I. Van de Woestyne "Cost Metafrontiers are Nonconvex in the Outputs since the Metafrontier is Nonconvex: The Price of a Convexification Strategy".

- 21 December 2022: Nanjing (Nanjing University of Aeronautics and Astronautics, College of Economics and Management) seminar (webinar): Kerstens, K., C. O'Donnell, I. Van de Woestyne "Cost Metafrontiers are Nonconvex in the Outputs since the Metafrontier is Nonconvex: The Price of a Convexification Strategy".
- 25 April 2023: Dijon (Burgundy School of Business), seminar: Kerstens, K., C. O'Donnell, I. Van de Woestyne "When the Production Metafrontier is Nonconvex, then Cost Metafrontiers are Nonconvex in the Outputs: The Price of a Convexification Strategy".
- 1 June 2023: Liège (HEC, Université de Liège), seminar: Kerstens, K., C. O'Donnell, I. Van de Woestyne "When the Production Metafrontier is Nonconvex, then Cost Metafrontiers are Nonconvex in the Outputs: The Price of a Convexification Strategy".
- 13 December 2023: Hunan (Xiangtan University, Business School), seminar: Kerstens, K., C. O'Donnell, I. Van de Woestyne "When the Production Metafrontier is Nonconvex, then Cost Metafrontiers are Nonconvex in the Outputs: The Price of a Convexification Strategy".

#### 6.2.2. Conferences:

- 28 March 2019: Gent (Universiteit Gent, Faculty of Economics and Business Administration), workshop "Firm Heterogeneity in Technical Change": Jin, Q., K. Kerstens, I. Van de Woestyne "Metafrontier Malmquist Productivity Index and The Price of a Convexification Strategy" (poster).
- 13 June 2019: London (University of London, Senate House) Sixteenth European Workshop on Efficiency and Productivity Measurement: Kerstens, K., C. O'Donnell, I. Van De Woestyne "The Cost Metafrontier is Nonconvex in the Outputs Since the Metafrontier is Nonconvex: The Price of a Convexification Strategy".
- 25 June 2019: Dublin (University College Dublin) Euro2019: Kerstens, K., C. O'Donnell, I. Van De Woestyne "The Cost Metafrontier is Nonconvex in the Outputs Since the Metafrontier is Nonconvex: The Price of a Convexification Strategy".
- 29 June 2019: Canterbury (University of Kent, Kent Business School) DEAIC: Kerstens, K., C. O'Donnell, I. Van De Woestyne "The Cost Metafrontier is Nonconvex in the Outputs Since the Metafrontier is Nonconvex: The Price of a Convexification Strategy".
- 9 June 2020: Coral Gables (University of Miami, Miami Business School), 11th North American Productivity Workshop, virtual keynote: Kerstens, K., J. Sadeghi, I. Van de Woestyne, J. Walden "Short-Run Johansen Frontier-Based Industry Models: Methodological Refinements and Empirical Illustration on Fisheries".
- 24 October 2021: Anaheim (Anaheim Convention Center), 2021 INFORMS Annual Meeting: Kerstens, K., C. O'Donnell, I. Van De Woestyne "Estimating Nonconvex Cost Metafrontiers Correctly: The Price of a Convexification Strategy".
- 28 October 2021: Tehran (Iranian DEA Society), 13th International Conference on Decision and Data Envelopment Analysis, virtual keynote: Chen, X., K. Kerstens, Q. Zhu "Exploring Horizontal Mergers in Swedish District Courts Using Convex and Nonconvex Technologies: Usefulness of a Conservative Approach".
- 16 March 2022: Lyon (EM Lyon), 1st Conference of the Modeling Uncertainty in Social, Economic, and Environmental Sciences (MUSEES) Association: Kerstens, K., P. Mazza, T. Ren, I. Van de Woestyne "Multi-Time and Multi-Moment Nonparametric Frontier-Based Fund Rating: Proposal and Buy-and-Hold Backtesting Strategy".
- 28 June 2022: Porto (Católica Porto Business School), Seventeenth European Workshop on Efficiency and Productivity Measurement : Ang, F., K. Kerstens, J. Sadeghi "Energy Productivity and Greenhouse Gas Emission Intensity in Dutch Dairy Farms: A Hicks-Moorsteen By-production Approach Under Convexity and Nonconvexity and Equivalence Results".

- 8 October 2022: Taipei (National Taiwan University & Taiwan Efficiency and Productivity Association) Asia Pacific Productivity Conference 2022 - Virtual Meeting: Ang, F., K. Kerstens, J. Sadeghi “Energy Productivity and Greenhouse Gas Emission Intensity in Dutch Dairy Farms: A Hicks-Moorsteen By-production Approach Under Convexity and Nonconvexity and Equivalence Results”.
- 17 November 2022: Tabriz (Department of Mathematics, Azarbaijan Shahid Madani University) 15th International Conference of Iranian Operations Research Society, virtual keynote speaker: Ang, F., K. Kerstens, J. Sadeghi “Energy Productivity and Greenhouse Gas Emission Intensity in Dutch Dairy Farms: A Hicks-Moorsteen By-production Approach Under Convexity and Nonconvexity and Equivalence Results”.
- 14 June 2023: Coral Gables (University of Miami, Miami Business School), 11th North American Productivity Workshop: Chen, X., K. Kerstens, P.J. Kerstens “Two Nonconvex Variable Returns to Scale Technologies and Cost Functions: An Exploration on US Banking and Testing Convexity”.
- 5 August 2023: Altoona (Pennsylvania State University, Altoona), International Conference on Empirical Economics (virtual conference): Kerstens, K., C. O'Donnell, I. Van De Woestyne “When the Production Metafrontier is Nonconvex, then Cost Metafrontiers are Nonconvex in the Outputs: The Price of a Convexification Strategy”.
- 4 September 2023: Guildford (University of Surrey, Surrey Business School), International Conference on Data Envelopment Analysis DEA45: O. Badunenko, K. Kerstens, J. Sadeghi “Revenue Functions are Non-Concave in the Inputs when the Technology is Non-Convex: The Unbearable Lightness of Convexification”.
- 4 September 2023: Guildford (University of Surrey, Surrey Business School), International Conference on Data Envelopment Analysis DEA45: H.K. Dakpo, F. Ang, K. Kerstens “Cost Efficiency under Convex and Non-Convex Technologies: Does Output Aggregation Matter?”.
- 30 November 2023: Tehran (Iranian DEA Society), 15th International Conference on Data Envelopment Analysis and Decision Science, virtual keynote: Kerstens, K., C. O'Donnell, I. Van De Woestyne “When the Production Metafrontier is Nonconvex, then Cost Metafrontiers are Nonconvex in the Outputs: The Price of a Convexification Strategy”.

### 6.3. Professional Services:

#### 6.3.1. Editorial Positions and Reviewing of Articles and Books:

##### Editorial positions:

- Associate Editor of the international OR journal *TOP* (2001-2006).
- Associate Editor of the international economics journal *Journal of Productivity Analysis* (2010- ).
- Associate Editor of the international finance journal *International Journal of Portfolio Analysis & Management* (2011- ).
- Associate Editor of the international accounting journal *European Accounting and Management Review* (2014- ).
- Associate Editor of the international OR journal *The Data Envelopment Analysis Journal* (2016- ).
- Special Issue Editor (with S. Stefanou): “The Context of Discovery: An Experiment in Modeling R&D in Agriculture”, *Journal of Productivity Analysis*, 2008, 30(1-2), 1-98.

##### Reviewing of articles:

| Journals  | Contacted by: |
|---|---------------|
| 4OR   | D. Bouyssou   |
| <i>American Journal of Agricultural Economics</i> | S. Swallow    |

|   |   |
|---|---|
| <i>Annals of Operations Research</i>                      | J. Zhu  |
| <i>Annals of Public and Cooperative Economics</i>         | F. Fecher; B. Thiry   |
| <i>Applied Economics</i>                                  | M.P. Taylor   |
| <i>Bulletin of Economic Research</i>                      | G. Talmain; L. Zanchi   |
| <i>Canadian Journal of Agricultural Economics</i>         | J. Nolan  |
| <i>Central European Journal of Operations Research</i>    | A. Emrouznejad (SI)   |
| <i>Computers &amp; Industrial Engineering</i>             | M. Toloo  |
| <i>Data Envelopment Analysis Journal</i>                  | S.C. Ray  |
| <i>Decision Sciences</i>                                  | M. Kuula  |
| <i>Economics Letters</i>                                  | A.A. Samwick  |
| <i>Economic Modelling</i>                                 | W. Briec (SI); S.G. Hall; R. Ratti; N. Tzeremes   |
| <i>Économie et Prévision</i>                              | P. Malgrange  |
| <i>Economisch en Sociaal Tijdschrift</i>                  | E. Van De Voorde  |
| <i>Empirical Economics</i>                                | R. Sickles; H.J. Wang   |
| <i>Environmental and Resource Economics</i>               | A. Oude Lansink (SI)  |
| <i>European Economic Review</i>                           | F. Andersson  |
| <i>European Journal of Finance</i>                        | B. Casu   |
| <i>European Journal of Operational Research</i>           | E. Borgonovo; R. Dyson; J.T. Pastor (SI); L. Simar (SI); E. Thanassoulis; J. Vissers (SI); J. Wallenius   |
| <i>European Review of Agricultural Economics</i>          | G. Karagiannis  |
| <i>Health Care Management Science</i>                     | Y.A. Ozcan  |
| <i>Intern. J. of Portfolio Analysis and Management</i>    | P. Xidonas  |
| <i>International Journal of Production Economics</i>      | P. Kelle; B. MacCarthy; O. Tang   |
| <i>International Journal of Production Research</i>       | A. Dolgui   |
| <i>International Journal of Research in Marketing</i>     | A. Bultez (SI)  |
| <i>International Regional Science Review</i>              | S. Rey  |
| <i>International Transactions in Operational Research</i> | T. Anderson; K. De Witte  |
| <i>Journal of Banking and Finance</i>                     | I. Mathur   |
| <i>Journal of Economics</i>                               | G. Corneo   |
| <i>Journal of Economic Dynamics and Control</i>           | I. Petrella   |
| <i>Journal of Economic Growth</i>                         | O. Galor  |
| <i>Journal of the Operational Research Society</i>        | J. Crook; E. Thanassoulis (SI)  |
| <i>Journal of Productivity Analysis</i>                   | A. Alvarez (SI); A. Athanassopoulos; B. Balk; P. Bogetoft (SI); R.G. Chambers; T. Coelli; F. Førsund; K. Fox; H. Fried (SI); T.-T. Fu; B. Golany; S. Grosskopf; T. Kuosmanen; S.K. Li (SI); C.A.K. Lovell; C. O'Donnell; O. Olesen; N.C. Petersen; A. Peyrache (SI); J.T. Pastor (SI); V. |



|   |  |
|---|--|
|   | Podinovski; R.R. Russell; W. Schworm; H. Tulkens; E. Thanassoulis; P. Wilson; S. Yaisawarng (SI); V. Zelenyuk (SI) |
| <i>Journal of Regional Science</i>                      | S. Brakman   |
| <i>Journal of Transport Economics and Policy</i>        | T.H. Oum   |
| <i>Journal of Urban Economics</i>                       | W. Strange   |
| <i>Management Science</i>                               | C.A.K. Lovell; J.-P. Vial  |
| <i>Managerial and Decision Economics</i>                | A. Dnes  |
| <i>Marine Resource Economics</i>                        | N. Vestergaard (SI)  |
| <i>OMEGA Internat. J. of Management Science</i>         | B. Adenso-Diaz; N. Adler; Z. Huang; C. Kao; B. Lev; S. Lim; W.B. Liu; V. Podinovski; J. Zhu                        |
| <i>Recherches Économiques de Louvain</i>                | M. De Vroey  |
| <i>Regional Science and Urban Economics</i>             | Y. Zenou   |
| <i>Regional Studies</i>                                 | B. Asheim  |
| <i>Resource &amp; Energy Economics</i>                  | M. Hoel  |
| <i>Resources Policy</i>                                 | G. Campbell  |
| <i>Review of Agricultural and Environmental Studies</i> | C. Gaigné  |
| <i>Review of Economics and Statistics</i>               | J. Rotemberg   |
| <i>Revue Économique</i>                                 | M. Boutillier  |
| <i>Scandinavian Journal of Economics</i>                | S. Holden  |
| <i>Socio-Economic Planning Sciences</i>                 | A. Cotte Poveda  |
| <i>Southern Economic Journal</i>                        | K. Hayes; L. Razzolini   |
| <i>Transportation</i>                                   | M. Richards  |
| <i>Transportation Research E</i>                        | W.K. Talley  |
| <i>Transportmetrica</i>                                 | S.C. Wong  |
| <i>Transport Policy</i>                                 | J. Preston   |

---

SI = special issue

Reviewing of books, book proposals or book chapters for the following publishers:

- November 2006: Cambridge University Press.
- February 2008: Elsevier (editor: W.K. Talley).
- March 2014: Oxford University Press.
- April 2024: Cambridge University Press.

#### 6.3.2. Reviewing of Grant Proposals:

Evaluation of research proposals and research units for the following institutions:

- December 2003: Standard Research Grants program, Social Sciences and Humanities Research Council of Canada.

- October 2008, 2009, 2014 and 2015: INRA, Call for projects of the Conseil Scientifique du Département SAE2 (Sciences Sociales, Agriculture et Alimentation, Espace et Environnement).
- December 2008: AERES (Agence d'Evaluation de l'Enseignement et de la Recherche), expert for the evaluation of the public economics unit of INRA: AgroParistech.
- January 2009: AERES (Agence d'Evaluation de l'Enseignement et de la Recherche), expert for the evaluation of the economics unit of EHESS and CNRS: Centre International de Recherche sur l'Environnement et le Développement (CIRED).
- January 2011: AERES (Agence d'Evaluation de l'Enseignement et de la Recherche), expert for the evaluation of Doctoral Schools (ED = école doctorale) "ED67 Sciences Juridiques et Politiques" & "ED372 Sciences économiques et de gestion d'Aix-Marseille".
- April 2011: Qatar National Research Fund, proposition NPRP 4-563-5-081 for Cycle 4 (2010).
- December 2012: INRA, Département SAE2, Call for PhD topics – IB 2013.
- March 2013: Research Foundation - Flanders (FWO), Application for Postdoctoral Fellow.
- January 2014: AERES (Agence d'Evaluation de l'Enseignement et de la Recherche), expert for the evaluation of the INRA unit ASTRO "Agrosystèmes Tropicaux".
- January 2014: INRA, Département SAE2, Call for PhD topics – IB 2014.
- February 2014: Research Foundation - Flanders (FWO), Application for Postdoctoral Fellow.
- April 2014: INRA, Département SAE2, Transfer Project INRA-European Forest Institute.
- February 2015: INRA, Département SAE2, Call for PhD topics – IB 2015: 2 proposals.
- March 2015: INRA, Département SAE2, 2 proposals for researcher-engineering positions.
- January 2016: INRA, Département SAE2, Call for PhD topics– IB 2016: 2 proposals.
- April 2016: INRA, Département SAE2, 2 proposals for research positions.
- April 2017 and 2018: Xi'an Jiaotong-Liverpool University, Research Development Fund, evaluation research project.
- August 2019, 2020 and 2021: Fonds de la Recherche Scientifique - FNRS, Mandat d'impulsion scientifique MIS.
- July 2021: University of Sharjah, Office of Vice Chancellor for Research and Graduate Studies, Research Department.
- July 2023: Czech Science Foundation: Project proposal for a public tender in research, experimental development and innovation to support basic research grant projects for Standard Projects 2024.

### 6.3.3. Recruitment and Promotion Committees:

#### Recruitment committees:

- Member of the "Commission des spécialistes" (= recruitment committee) of the university of Perpignan (2001-2006).
- Member of the "Commission des spécialistes" (= recruitment committee) of the university of Lille 3 (2001-2006).
- Member of the recruitment committee of the University of Perpignan for the position 05 MCF 0394 (May 2010).
- Member of the recruitment committee of IAE de Paris for the positions 06 PR 4009 and 06 MCF 4010 and 4011 (May 2012).
- Member of the recruitment committee of IAE de Paris for the position 06 PR 4013 (May-June 2013).
- Referee for recruitment of a professor at Jawaharlal Nehru University (January 2018).

- Referee for recruitment of a professor at KULeuven (January 2018).
- Referee for recruitment of a professor Mathematics/Operations Research (W2), Fakultät Informatik/Mathematik, University of Applied Sciences Dresden (October 2020).
- Member of the recruitment committee of a full-time academic position in “Applied Microeconomics” at HEC, University of Liège (February-March 2021).
- Referee for recruitment of a professor in Operations Management at the University of Lausanne (August 2021).
- Renewal of the Dr. Alex Faseruk Chair in Financial Management in the Faculty of Business Administration at Memorial University (May 2022).

#### Evaluation of promotions & awards:

- October 2007: Provost’s Research Excellence Award, University of Connecticut.
- July 2008: Assessor for promotion to Reader, Cass Business School (City University London).
- February-March 2009 & January 2010: Assessor for promotion to Senior Lecturer, School of Economics (Henley Business School, University of Reading).
- March-April 2009: Promotion Professor, Faculty of Economics, Administrative and Social Sciences (Bilkent University).
- May 2010: Promotion “Professor” (function of "Dean"), Faculty of Economics & Administrative Sciences (Kadir Has University).
- September 2010 - October 2011: member "Profile- and Appointment Advisory Committee" for "Chair Innovation and Public Sector Efficiency" (Delft University of Technology).
- October 2016, July 2017, and August 2018: Promotion “Professor”, School of Economics & Finance (Massey University).
- July 2017: Promotion “Associate Professor”, School of Economics (University of Queensland).
- March 2018: Promotion “Professor”, Faculty of Business and Law (De Montfort University).
- September 2019: College Research Awards - Early Career category, School of Economics & Finance (Massey University).

#### 6.3.4. Memberships and Committees:

- Member of the “Productivity Analysis Research Network” (PARN).
- Member of the “Conseil de l’IFRESI” (2002-2007).
- Nominated member of the Scientific Council of the department Social Sciences of INRA (Institut National de la Recherche Agronomique) (2008-2016).

#### 6.3.5. Organisation of Seminars and Conferences:

##### Organisation of visits and seminars:

- R. Färe and S. Grosskopf (Southern Illinois University) in October 1997, M. Pollitt (University of Cambridge) in January 1999, T. Coelli (University of New England) in February 2000, P. Agrell (Royal Agricultural University, Copenhagen) in February 2001, L. Cherchye (Katholieke Universiteit Leuven Campus Kortrijk) in November 2003, E. Grifell-Tatjé (Universitat Autònoma de Barcelona) in March 2004, P. Wilson (University of Texas at Austin) in May 2004, R.G. Chambers (University of Maryland & University of Western Australia) in May 2004, B. Balk (Erasmus University Rotterdam & Statistics Netherlands) in October 2004, J.-P. Chavas (University of Wisconsin-Madison) in March 2005, S. Managi (Yokohama National University) in March 2006, D. Prior (Universitat Autònoma de

Barcelona) in May 2006, N. Vestergaard (University of Southern Denmark) in May 2008, A. Peyrache (University of Queensland) in April 2016., and Mike Tsionas (Montpellier Business School, & Lancaster University Management School) in September 2022.

Organisation of conferences:

- Member of the scientific committee of the “European Workshop on Efficiency and Productivity Measurement” (2000-2015).
- Co-responsible (with P. Agrell & P. Vanden Eeckaut) for the organisation of the 9th and 10th “European Workshop on Efficiency and Productivity Measurement” (EWEPA: see ewepa.org) in 2005 (Brussels) and in 2007 (Lille).
- Co-responsible (with O. Brandouy, A. Lozano-Vivas & A. Zago in the “Steering Committee”) for the organisation of the workshop “Fostering a European Network on Financial Efficiency: Banking, Portfolio Theory and Computational Issues” (FENFE: see [www.gapem.org/FENFE](http://www.gapem.org/FENFE)) (25 February 2008 at IFRESI, Lille). Also member of the “Local Organizing Committee”.
- Member of the Organizing and Scientific Committee of the workshop "Efficiency and Productivity in Banking Industry" organised by the European Research Group “Money, Banking & Finance” (GdRE n° 335) on 23 April 2008 at IESEG School of Management (Lille). See the web site: <http://gdre.leo-univ-orleans.fr/journees.html>
- Associate Editor of track “Strategic Management of IS and IT” at ECIS (16th European Conference on Information Systems) organised from 9 to 11 June 2008 in Galway (J.E. Cairnes Graduate School of Business and Public Policy, National University of Ireland).
- Member of the scientific committee of “DEA2015” (Braunschweig, TU Braunschweig), “DEA2016” (Wuhan, Jiangnan University), and “DEA2017” (Prague, University of Economics).
- Member of the scientific committee of “Advances in Quantitative Asset Management” on 25 November 2016 (Bordeaux, Université Bordeaux).
- Member of the scientific committee of “Tenth National Conference on Data Envelopment Analysis” on 5-6 September 2018 (Karaj, Kharazmi University).
- Member of the scientific committee of “International Conference on Data Envelopment Analysis DEA45” (Guildford, University of Surrey, Surrey Business School).

6.4. Extra-Academic Activities:

- Expert for IOO bv (Instituut voor Onderzoek van Overheidsuitgaven) in The Hague (November 1997 & June 1998).
- Expert for APE bv (Aarts De Jong Wilms Goudriaan Public Economics) in The Hague (March 2002 & December 2002).
- Expert for ECORYS-NEI Labour and Social Policy in Rotterdam (September 2003).
- Expert for National Marine Fisheries Service (NMFS) in La Jolla (CA, USA) (December 2009).

7. *Hobbies:*

---

Sports: Shotokan Karate since 1999 (1st kyū) and skiing (two weeks/year)

Reading books

Movies

Travelling: City trips (Barcelona, Berlin, Copenhagen, Lisbon, Madrid, Paris, Taipei, Turin, Vienna, etc.) and holidays (Austria, Belgium, Croatia, France, Germany, Greece, Italy, Ireland, Luxembourg, Netherlands, Portugal, Spain, Sweden, Switzerland, Taiwan, Turkey, UK).