Draft Program

21 May 2015

Note: Changes to the program are possible. This program version includes papers accepted for presentation conditional on registration by the presenting author by 20 May.

All presenting authors of accepted papers must register by 31 May at latest. If your paper has been accepted and you have registered by 20 May but your paper is not scheduled in the program yet, please contact the organizers.
# OVERALL SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Track</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<tr>
<td>8:30 - 17:00</td>
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<td>Registration</td>
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<tr>
<td>9:00 - 10:30</td>
<td>A</td>
<td>Young researcher workshop Software tutorials</td>
<td>Plenary session 1</td>
<td>Plenary session 2: That’s Interesting Competition</td>
<td>Discuss sessions ThB</td>
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<td>11:00 - 12:30</td>
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<td>Young researcher workshop Software tutorials</td>
<td>Discuss sessions TuB</td>
<td>Discuss sessions WeB</td>
<td>Express sessions ThC</td>
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<tr>
<td>12:30 - 14:00</td>
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<td>Lunch break</td>
<td>Lunch break (EWEPA Scientific committee</td>
<td>Lunch break (JPA Editorial Board lunch meeting)</td>
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<td>Young researcher workshop Software tutorials</td>
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<td>Explain sessions ThD</td>
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<td>15:30 - 16:00</td>
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<td>Coffee break</td>
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<td>Farewell coffee</td>
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<td>16:00 - 17:30</td>
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<td>Young researcher workshop</td>
<td>Explain sessions TuD</td>
<td>Explain sessions WeD</td>
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<tr>
<td>17:30-</td>
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<td>Informal get-together at Aalto University School of Business (Chydenia)</td>
<td>Explain sessions TuD</td>
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<td>18:00-</td>
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<td>Reception at the City Hall</td>
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<td>18:30-</td>
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<td>Conference Dinner at Grand Marina Congress Center</td>
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**SESSION SCHEDULE - MONDAY**

**Young Researcher (YR) Workshop, Software Tutorials**

<table>
<thead>
<tr>
<th>Time</th>
<th>Young researcher workshop, H324 Stora Enso (Chydenia building)</th>
<th>Software tutorials *</th>
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<td>8:30 - 17:30</td>
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<tr>
<td>8:50 - 9:00</td>
<td>Opening Remarks</td>
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<td>9:00 - 10:30</td>
<td>MoA-01: Inference</td>
<td>MoA-02 Basic R Tutorial</td>
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<td>11:00 - 12:30</td>
<td>MoB-01: Dynamic models 1</td>
<td>Basic R Tutorial (cont.)</td>
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<td>12:30 - 14:00</td>
<td>Lunch break (Restaurants Proffa and Rafia in the Main Building)</td>
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<td>14:00 - 15:30</td>
<td>MoC-01: Regions and sectors</td>
<td>MoC-02 GAMS Tutorial</td>
<td>MoC-03 Advanced R Tutorial</td>
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<tr>
<td>16:00 - 17:30</td>
<td>MoD-01: Dynamic models 2</td>
<td>GAMS Tutorial (cont.)</td>
<td>Advanced R Tutorial (cont.)</td>
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* Pre-registration required for software tutorials.
# SESSION SCHEDULE - TUESDAY

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<tr>
<td>8:30-17:30</td>
<td>Registration</td>
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<td>9:00-10:30</td>
<td>A Plenary Session 1, TuA-01 (Europaea): “Nonparametric smoothing and shape constraints” Christopher Parmeter and Andrew Johnson</td>
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<td>10:30-11:00</td>
<td>Coffee break</td>
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## Session rooms

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<td>11:00-12:30</td>
<td>B Discuss TuB-01 Banking 1 TuB-02 Nonparametric models TuB-03 Stochastic frontiers 1 TuB-04 TFP 1 TuB-05 Energy 1 TuB-06 Agriculture 1</td>
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<td>12:30-14:00</td>
<td>Lunch break (Restaurant, 2nd floor) EWEPA Scientific Committee meeting (Marine room)</td>
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<td>14:00-15:30</td>
<td>C Express TuC-01 Banking 2 TuC-02 Production theory TuC-03 Stochastic frontiers 2 TuC-04 TFP 2 TuC-05 Energy 2: Regulation TuC-06 Agriculture 2</td>
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SESSION PROGRAM

MONDAY 15 June

Note: the presenting author indicated by asterisk *

Opening Remarks
8:50 - 9:00, H-324 Stora Enso

MoA-01: Inference
9:00-10:30, H-324 Stora Enso
Session chair: Christopher Parmeter

Bootstrap-based testing for network DEA: Some Theory and Application
Kelly Trinh* and Valentin Zelenyuk
Discussant: TBA

Heterogeneity of inefficiency persistence under a Bayesian framework
Ioannis Skevas,* Grigorios Emvalomatis and Bernhard Bruemmer
Discussant: TBA

Nonparametric analysis of dynamic production with storable and durable input
Laurens Cherchye and Pieter Jan Kerstens*
Discussant: Andrew Johnson

Dynamic stochastic analysis of the farm subsidy-efficiency link: Theory and evidence
Jean Joseph Minviel* and Timo Sipiläinen
Discussant: TBA

Measuring the development of efficiency and productivity of banks in the Visegrad group: An application of CCR model and the Malmquist approach
Lucie Chytilova
Discussant: Kristiaan Kerstens

MoA-02: Basic R Tutorial
9:00-10:30, C250 Tieto (Main Building)
11:00-12:30, C250 Tieto (Main Building)
Tomasz Czekaj and Arne Henningsen

MoC-01: Regions and sectors
14:00-15:30, H-324 Stora Enso
Session chair: Jaap Bos

Financial effects of Chinese import competition: The case of disappearing IPOs
Jaap Bos and Omar Hassib* and Lu Zhang
Discussant: TBA

Scale economies of multi-output public agencies: An empirical analysis of English and Welsh local male prisons
Veerle Hennebel,* Richard Simper and Marijn Verschelde
Discussant: Victor Podinovski

An evaluation of production efficiency of ICT sectors in the EU: A stochastic frontier approach to Malmquist productivity index
Jan Maniák
Discussant: Jaap Bos
MoC-02: GAMS Tutorial
14:00-15:30, C250 Tieto (Main Building)
16:00-17:30, C250 Tieto (Main Building)

Andrew Johnson

MoC-03: Advanced R Tutorial
14:00-15:30, G113
16:00-17:30, G113

Christopher Parmeter

MoD-01: Dynamic models 2
16:00-17:30, H-324 Stora Enso
Session chair: Pekka Korhonen

*Environmental Growth Convergence among Chinese Regions*
Jean Philippe Boussemart, Hervé Leleu and Zhiyang Shen*
Discusant: Mette Asmild

*Measuring the Technical Efficiency of Farms Producing Environmental Output: Semiparametric Estimation of Multi-output Stochastic Ray Production Frontiers*
Tomasz Gerard Czekaj*
Discusant: TBA

*Two-stage processes and an evaluation of their efficiencies with a multiple objective DEA model*
Mahdi Mahdiloo*, Abdol Hossein Jafarzadeh, Abdollah Noorizadeh, Reza Farzipoor Saen and Peter Tatham
Discusant: Pekka Korhonen
TUESDAY 16 June

TuA-00: Plenary session 1
9:00-10:30, Europaea

*Nonparametric smoothing and shape constraints*
Christopher Parmeter
Andrew Johnson

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TuB-01: Banking 1
11:00-12:30, Europaea
Session chair: Jaap Bos

*Considering favourability indexes as part of the Malmquist index*
Mette Asmild and Kwaku Ohene-Asare*
Discussant: Jaap Bos

*Banking on Industry: microeconomic evidence on the impact of financial services on industrial structure and development*
Jaap Bos and Marta Degl’Innocenti*
Discussant: Mette Asmild

*A double whammy: Credit chains and idiosyncratic supplier shocks*
Dennis Bams, Jaap Bos* and Magdalena Pisa
Discussant: Marta Degl’Innocenti

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TuB-02: Nonparametric models
11:00-12:30, Fennia I
Session chair: Andrew Johnson

*Bandwidth selection issues for nonparametric conditional efficiency estimation: a Monte-Carlo investigation*
Luiza Badin,* Cinzia Daraio and Leopold Simar
Discussant: Abolfazl Keshvari

*Penalized shape restricted least squares with an application to productivity analysis*
Abolfazl Keshvari
Discussant: Andrew Johnson

*Shape constrained kernel weighted least squares for the estimation of production functions*
Daisuke Yagi* and Andrew Johnson

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TuB-03: Stochastic frontiers 1
11:00-12:30, Fennia II
Session chair: Subal Kumbhakar

*The validity of statistical inference about unit-specific technical efficiencies in cross-sectional stochastic frontier models: Comparison of Bayesian and classical approaches*
Oleg Badunenko and Yaryna Kolomiytseva*
Discussant: Christine Amsler

*Endogeneity in stochastic frontier models*
Christine Amsler, Artem Prokhorov* and Peter Schmidt
Discussant: Subal Kumbhakar

*A general error revenue function model with technical inefficiency: An application to Norwegian fishing trawler*
Subal Kumbhakar, Frank Asche, Kristin Roll and Ragnar Tveteras*
Discussant: Yaryna Kolomiytseva

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TuB-04: TFP 1
11:00-12:30, Nordia
Session chair: David Tripe

*Offshoring, biased technical change and the increasing capital share: An analysis of global manufacturing production*
Marcel Timmer and Xianjia Ye*
Discussant: Thanh Ngo

*The innovative input mix: Assessing the importance of R&D and ICT investments for firm performance in manufacturing and services*
Marina Rybalka
Discussant: Xianjia Ye

Nonparametric Fisher total factor productivity index using shadow prices: panel vs. time series data
Thanh Ngo* and David Tripe
Discussant: Marina Rybalka

TuB-05: Energy 1
11:00-12:30, Nautica
Session chair: Mette Bjørndal

Operational conditions in regulatory benchmarking models - A Monte Carlo simulation study
Maria Nieswand and Stefan Seifert*
Discussant: Mark Andor

SFA quasi-likelihood: A new stochastic frontier estimation method
Mark Andor
Discussant: Astrid Cullmann

Challenged, or just inefficient? Compensating for exogenous cost drivers in the regulation of electricity networks
Endre Bjørndal, Mette Bjørndal, Astrid Cullmann, and Maria Nieswand
Discussant: Maria Nieswand

TuB-06: Agriculture 1
11:00-12:30, Press room
Session chair: Magdalena Kapelko

Estimating the economic value of symbiotic nitrogen: A distance function approach
Robertson Khataza*, Atakelty Hailu, Graeme Doole and Marit Kragt

Bayesian analysis of productivity growth of Polish dairy farms
Kamil Makiela and Jerzy Marzec and Andrzej Pisulewski*

Dynamic input-specific productivity change: measurement and application to European dairy manufacturing firms

Magdalena Kapelko*, Alfons Oude Lansink and Spiro Stefanou

TuC-01: Banking 2
14:00-15:30, Europaea
Session chair: Paul Rouse

Efficiency and risk in the Banking industry: Evidence from Southeast Europe
Bashkim Nurboja

How many and what to include: Re-evaluating the Z environmental variables in an SFA cross country banking model
Richard Simper*, Aristeidis Dadoukis, Yuzhu Li and Rob Webb

How do we know what the right price is (and does it matter)?
Paul Rouse* and David Tripe

TuC-02: Production theory
14:00-15:30, Fennia I
Session chair: Kristiaan Kerstens

Choice of technology which generates normalized CES production function
Andrei Matveenko and Vladimir Matveenko*

Multiplicative duality theory in production economics
Walter Briec and Paola Ravelojaona*

Frontier metatechnologies and convexity: A restatement
Kristiaan Kerstens, *Christopher O’Donnell and Ignace Van de Woestyne

TuC-03: Stochastic frontiers 2
14:00-15:30, Fennia II
Session chair: Jos Blank

The assimilation of young workers into the labour market in France: A stochastic frontier approach
Stephen Bazen and Khalid Maman Waziri*
 Assessing substitutability among undesirable outputs using parametric directional output distance function: A Monte Carlo analysis
Viktor Khanzhyn

The scaling property and the use of a system of equations approach: An application to Dutch secondary education
Jos Blank*

TuC-04: TFP 2
14:00-15:30, Nordia
Session chair: Nicky Rogge

Effects of imports on technical efficiency in Russian food industry
Yevhenii Shchetynin

The dynamics of total factor productivity and its components: Russian plastic production
Irina Ipatova

Relation between determinants of total factor productivity and stock returns
Matthieu Belarouci

Benchmarking EU social inclusion and poverty policies in the period 2005 – 2012
Nicky Rogge

TuC-05: Energy 2: Regulation
14:00-15:30, Nautica
Session chair: Roar Amundsveen

Comments on the Brazilian benchmarking model for energy distribution regulation - Fourth cycle of tariff review (2015-2018)
Peter Bogetoft and Ana Lopes*

Application of the StoNED method in the regulation of electricity distribution operators in Finland: The regulator’s perspective
Matti Ilonen

Economies of Vertical Integration and Efficient Electricity Markets

Roar Amundsveen and Hilde Marit Kvile*

TuC-06: Agriculture 2
14:00-15:30, Press room
Session chair: Tomasz Czekaj

Addressing technical efficiency and technology heterogeneity in the Irish cattle sector: Exploring the effects of the Single Farm Payment on different cattle farm types
Maria Martinez-Cillero,* James Breen, Fiona Thorne, Thia Hennessy and Michael Wallace

Determinants of MD2* adoption, production efficiency and technology gaps in the Ghanaian pineapple production sector
Amos Mensah* and Bernhard Brümmer

A meta-frontier approach for causal inference in productivity analysis: The effect of contract farming on sunflower productivity in Tanzania
Arne Henningsen, Daniel Mpeta, Anwar Adem, Joseph Kuzilwa, Tomasz Czekaj

TuD-01: Banking 3
16:00-17:30, Europaea
Session chair: Paul Wilson

Managerial efficiency under centralized management - A dynamic approach with an empirical illustration to German saving banks
Mohsen Afsharian* and Heinz Ahn

Bank branch operational performance: A robust and fuzzy clustering approach
Oscar Herrera-Restrepo and Kostas Triantis* and William Seaver and Joseph Paradi

Sources of returns to scale of U.S. banks: Cost, revenue, and profit
David Wheelock and Paul Wilson*

TuD-02: DEA 1
16:00-17:30, Fennia I
Session chair: Jesus Pastor
Output-specific inputs in DEA
Maria Portela

Performance evaluation of the public employment services in Finland
Juha Eskelinen* and Abolfazl Keshvari

An enhanced BAM for unbounded or partially bounded CRS additive models
Jesus Pastor,* Juan Aparicio, Javier Alcaraz, Fernando Vidal, Diego Pastor and Juan Monge

TuD-03: Stochastic frontiers 3
16:00-17:30, Fennia II
Session chair: Peter Schmidt

The “wrong skewness” problem in stochastic frontier models: A new approach
Christian Hafner, Hans Manner and Leopold Simar*

Stochastic metafrontiers
Christine Amsler,* Christopher O'Donnell and Peter Schmidt

Distinguishing heterogeneity and inefficiency in a panel data stochastic frontier model
Christine Amsler and Peter Schmidt*

TuD-04: TFP 3
16:00-17:30, Nordia
Session chair: Bert Balk

Productivity and efficiency in the handbook of input-output analysis
Thijs ten Raa

On the aggregation of economic productivity indices
Bert Balk

TuD-05: Energy 3
16:00-17:30, Nautica
Session chair: Gerald Granderson

The impact of increased efficiency in the use of energy: A computable general equilibrium analysis for Spain
Pablo Arocena, Antonio Gómez-Plana and Sofía Peña

A decomposition of the aggregate energy intensity change of Spanish manufacturing industry
Pablo Arocena, Antonio Gómez-Plana and Sofía Peña

Impact of the 1990 Clean Air Act, and ISO membership, on production cost and efficiency in the electric utility industry
Gerald Granderson and Finn Forsund

TuD-06: Education 1
16:00-17:30, Press room
Session chair: Jose Dula

A unified productivity-performance approach applied to secondary schools in the Netherlands
Laurens Cherchye, Kristof De Witte and Sergio Perelman*

Assessing the multidimensional performance of universities: Overcoming rankings with conditional efficiency analysis
Cinzia Daraio,* Andrea Bonaccorsi and Leopold Simar

Lessons learned from DEA applied to university rankings
M.-L. Bougnol and Jose Dula*
WEDNESDAY 17 June

WeA-00: Plenary session 2
9:00-10:30, Europaea

Finalists of Aalto "That's Interesting!" award

The value of being socially responsible: A DEA approach for recovering shadow prices of CSR activities in the food manufacturing sector
Daniela Puggioni* and Spiro Stefanou

Management in production: From unobserved to observed
Thomas Triebs* and Subal Kumbhakar

The productivity of the internet from the perspective of households
Russel Cooper

Discussants: Jaap Bos, Victor Podinovski, and Timo Kuosmanen

WeB-01: Banking 4
11:00-12:30, Europaea
Session chair: Mette Asmild

A global house of debt effect? Mortgages and post-crisis recessions in fifty economies
Lu Zhang* and Dirk Bezemer
Discussant: Tsu-Tan Fu

Performance evaluation of taiwan banking industry with the consideration of corporate governance and risk management
Tsu-Tan Fu
Discussant: Mette Asmild

Inefficiency patterns amongst different types, and generations, of Bangladeshi bank
Mette Asmild,* Dorte Kronborg and Kent Matthews
Discussant: Lu Zhang

WeB-02: DEA 2

11:00-12:30, Fennia I
Session chair: Laurens Cherchye

The moments bootstrap: An alternative to smooth bootstrap DEA
Panagiotis Tziogkidis
Discussant: Marijn Verschelde

Ranking with a Euclidean common set of weights in data envelopment analysis: with application to the NZ banking sector
Thanh Ngo and David Tripe*
Discussant: Laurens Cherchye

Nonparametric analysis of multi-product firms with unobserved technological heterogeneity
Laurens Cherchye, Thomas Demuynck, Bram De Rock and Marijn Verschelde*
Discussant: David Tripe

WeB-04: Health care 1
11:00-12:30, Nordia
Session chair: Katharina Schley

An evaluation of technical efficiency in the nursing home sector in Ireland
Shiovan Ni Luasa,* Declan Dineen and Marta Zieba
Discussant: Ana Rodríguez Álvarez

By estimating the cost of reducing the waiting lists: A new approach
Ana González Vidales and Ana Rodríguez Álvarez*
Discussant: Shiovan Ni Luasa

Health care efficiency differences in German districts
Helmuth Herwartz and Katharina Schley*

WeB-05: Energy 4
11:00-12:30, Nautica
Session chair: Endre Bjørndal

Cluster analysis for energy distribution benchmarking: the 2014 Brazilian case
Marcelo Costa,* Aline Veronese and Ana Lopes  
Discussant: Antti Saastamoinen

Merger gains in the Norwegian electricity distribution industry  
Antti Saastamoinen,* Endre Bjørndal and Mette Bjørndal  
Discussant: Ana Lopes

Malmquist productivity analysis based on StoNED: The case of Norwegian electricity distribution companies  
Xiaomei Cheng,* Endre Bjørndal and Mette Bjørndal  
Discussant: Marcelo Costa

WeB-06: Education 2  
11:00-12:30, Press room  
Session chair: Sverre Kittelsen

Quality of upper secondary schools in finland: evaluating persistent and non-persistent differences in value-added  
Mika Kortelainen,* Heikki Pursiainen and Jenni Pääkkönen  
Discussant: Sverre Kittelsen

Environmental influences on academic performance: Evidence from Colombian higher education institutions  
Ligia Melo and Jorge Ramos  
Discussant: Mika Kortelainen

Productivity of Norwegian institutions of higher education 2004 – 2013  
Dag Fjeld Edvardsen, Finn Førsund and Sverre Kittelsen*  
Discussant: Jorge Ramos

WeC-04: Health care 2  
14:00-15:30, Nordia  
Session chair: Michael Vardanyan

Testing gender differences in productivity: an application to Spanish hospitals  
Maria Perez-Villadoniga,* Ana Rodriguez-Alvarez and David Roibás

The efficiency of health expenditure: Comparison of European countries  
Mária Grausová, Miroslav Hužvár* and Jana Štrangfeldová

A directional distance function approach for identifying the input/output status of medical residents  
Gary Ferrier, Hervé Leleu, Vivian Valdmanis and Michael Vardanyan*

WeC-05: Energy 5  
14:00-15:30, Nautica  
Session chair: Heike Wetzel

The use of composite indicators to evaluate the performance of Brazilian hydropower plants  
Ana Camanho,* Andreia Zanella and Felipe Calabria

Efficiency of wind power production and its determinants
Simone Pieralli,* Matthias Ritter and Martin Odening

Analyzing efficiency of biogas plants in Austria using data envelopment analysis
Andreas Eder,* Günther Bochmann and Bernhard Mahlberg

Carbon-decreasing developments among new competitors: Gas- and coal-fired plants in the US power sector
Christian Growitsch, Simon Paulus and Heike Wetzel*

WeC-06: Education 3
14:00-15:30, Press room
Session chair: Claudio Thieme

What can be learned from efficiency in sports to rank schools?
Julio del Corral

Locus of decision-making and the efficiency of the education sector
Marie Le Mouel,* Alexander Schiersch and Martin Gornig

Exploring cross-country differences in the efficiency of schools: a conditional nonparametric approach
Jose Cordero,* Cristina Polo, Daniel Santin and Rosa Simancas

An educational value added method using weight restrictions and nonparametric frontier techniques
Claudio Thieme,* Diego Prior, Emili Tortosa-Ausina and René Gempp

WeD-01: DEA 3
16:00-17:30, Europaea
Session chair: Victor Podinovski

Measuring input-specific productivity change through a Luenberger indicator based on the principle of least action
Juan Aparicio, Magdalena Kapelko, Bernhard Mahlberg* and Jose Sainz-Pardo

Interval scale data in the BoD model
Roxani Karagiannis* and Giannis Karagiannis

Consistent weight restrictions and production trade-offs in DEA
Victor Podinovski and Tatiana Bouzdine-Chameeva

WeD-04: Stochastic frontiers 4
16:00-17:30, Nordia
Session chair: Subal Kumbhakar

Elasticities of substitution and complementarity across space
Anthony Glass,* Karligash Kenjegalieva, Robin Sickles and Thomas Weyman-Jones

Global dependence and productivity: A robust nonparametric world frontier analysis
Camilla Mastromarco* and Léopold Simar

Do direction, normalization and the Jacobian matter in the productivity measurements based on the directional output distance function?
Mike Tsionas, Emir Malikov and Subal Kumbhakar*

WeD-05: Energy 6
16:00-17:30, Nautica
Session chair: William Greene

Yardstick regulation of electricity distribution – Disentangling short-run and long-run inefficiency
Subal Kumbhakar and Gudbrand Lien*

Persistent and transient efficiency – An application to the Swiss hydro power sector
Massimo Filippini, Thomas Geissmann* and William Greene
Persistent and transient productive inefficiency of the New Zealand electricity distribution companies
Massimo Filippini and William Greene*

WeD-06: Education 4
16:00-17:30, Press room
Session chair: Jill Johnes

Efficiency in education: A review of literature and a way forward
Kristof De Witte* and Laura Lopez-Torres

The three i’s of public schools: Irrelevant inputs, insufficient resources and inefficiency
Daniel Henderson,* Leopold Simar and Le Wang

University mergers in England: An analysis of efficiency effects using Bayesian methods
Jill Johnes* and Mike Tsionas
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ThA-05: Banking 5
9:00-10:30, Europaea
Session chair: Diego Prior

A cost efficiency analysis of the Insurance Industry in Mexico
Ana María Reyna* and Hugo Fuentes
Discussant: Diego Prior

Downsizing effects on the financial performance of European automobile production plants
Jonathan Calleja-Blanco* and Emili Grifell-Tatjé
Discussant: Ana María Reyna

Inefficiency and risk taking behavior in Spanish banking
Maria García-Alcober, Emili Tortosa-Ausina, Diego Prior* and Manuel Illueca
Discussant: Jonathan Calleja-Blanco

ThA-02: DEA 4
9:00-10:30, Fennia I
Session chair: Michaela Stanièková

Two decades of data envelopment analysis applied to the transport sector: A bibliometric analysis
Laurent Cavaignac and Romain Petiot
Discussant: Michaela Stanièková

Application of the nonparametric DEA metafrontier approach to compare technology gaps and environmental efficiency technology gaps among European regions
Jana Hanèlová, Lukáš Melecký* and Michaela Stanièková
Discussant: Romain Petiot

Context-dependent DEA approach: Performance catching up among European EU28 NUTS 2 regions
Michaela Stanièková* and Lukáš Melecký and Jana Hanèlová
Discussant: Laurent Cavaignac

ThA-03: Well-being
9:00-10:30, Fennia II
Session chair: Chiara Peroni

Part-time work and firm productivity: Evidence from Italy
Francesco Devicienti, Elena Grinza* and Davide Vannoni
Discussant: Chiara Peroni

Measuring of quality of life in Turkey provinces
Halil Tunca
Discussant: Elena Grinza

Making wellbeing productive: A network DEA framework
Charle-Henri Dimaria, Chiara Peroni* and Francesco Sarracino
Discussant: Halil Tunca

ThA-04: TFP 4
9:00-10:30, Nordia
Session chair: Elina Berghäll

Cross-country income differences revisited: accounting for the role of intangible capital
Wen Chen
Discussant: Marianna Papakonstantinou

Composition of human capital, distance to the frontier and productivity
Marianna Papakonstantinou*
Discussant: Elina Berghäll

FDI and the world technology frontier
Elina Berghäll
Discussant: Wen Chen

ThA-05: Energy 7
9:00-10:30, Nautica
Session chair: Humberto Brea-Solís
Tariff regulation of electricity distribution: A comparative analysis of regulatory benchmarking models
Ana Lopes and Roberto Mesquita*

Bayesian mapping methods applied to the 2014 Brazilian energy distribution benchmarking models: accounting for unobserved local determinants of inefficiency
Guilherme Gil, Marcelo Costa* and Ana Lopes
Discussant: Humberto Brea-Solís

The twilight zone between latent class modelling and outlier detection: A caveat for the regulatory use of frontier analysis
Per Agrell and Humberto Brea-Solís*
Discussant: Ana Lopes

ThA-06: Agriculture 3
9:00-10:30, Press room
Session chair: Alfons Oude Lansink

Climatic variability and adaptation in U.S. agriculture
Eric Njuki and Boris Bravo-Ureta
Discussant: Alfons Oude Lansink

Decomposing profit change: A Fischer-based approach applied to Finnish farms
Xavier Irz* and Timo Sipiläinen
Discussant: Boris Bravo-Ureta

Dynamic profit inefficiency: A DEA application to Belgian dairy farms
Frederic Ang and Alfons Oude Lansink*
Discussant: Xavier Irz

ThB-04: TFP 5
11:00-12:30, Nordia
Session chair: Doreen Cerny

Price-setting with unobservable elasticities of demand: The business-cycle effects of heterogeneous expectations
Christian Jensen

Productivity, structural change and informality: the case of Russia
Ilya Voskoboynikov and Vladimir Gimpelson

The Sources of Economic Growth in Sub-Saharan African Countries
Nosratollah Nafar
Productivity versus self-regulation - An empirical analysis on paradoxes in teaching profession
Doreen Cerny

The effects of forage crop mix on the efficiency and quality of milk production
Luis Orea, Jose Perez, David Roibas* and Alan Wall

ThB-05: Environment 2
11:00-12:30, Nautica
Session chair: Fabrizio Erbetta

Sustainable Directions
Frederic Ang, * Simon Mortimer, Francisco Areal and Richard Tiffin

Measuring social welfare and drivers of its change
Martin Lábaj, Mikuláš Luptáèik and Eduard Nežinský*

Marginal CO2 abatement costs: Findings from alternative shadow price estimates for Shanghai industrial sectors
Xun Zhou

Business innovation and waste management sustainability: the case of door-to-door collection
Graziano Abrate, Clementina Bruno, Fabrizio Erbetta, * and Giovanni Fraquelli

ThC-05: Banking 6
14:00-15:30, Europaea
Session chair: Stefania Rossi

What drives performance among Tanzanian savings and credit cooperatives? Multiple case study approach
Nyankomo Marwa and Meshach Aziakpono

The effect of manager's risk preference and bank consolidation on risk diversification in U.S.
Ming-Hsiang Huang, * Hsiu-Wen Hsueh, Tsui-Yueh Cho and Yung-Lieh Yang

Credit crunch, gender discrimination and social capital: an empirical investigation on the European countries
Emma Galli and Stefania Rossi*

ThC-02: DEA 6
14:00-15:30, Fennia I
Session chair: Emmanuel Thanassoulis

Cross-country difference in evaluations of socioeconomic conditions: a life satisfaction approach
Hideyuki Mizobuchi, * Jue Yang and Shunsuke Managi

Network DEA, industry structure, and intermediate input congestion in the Italian justice sector
Antonio Peyrache and Angelo Zago*

Identifying the scope for savings at inpatient episode level: An illustration applying DEA to chronic obstructive pulmonary disease
Emmanuel Thanassoulis*, Maria Portela, and Mike Graveney
ThC-03: Stochastic frontiers 6  
14:00-15:30, Fennia II  
Session chair: Phill Wheat

A Stochastic Frontier Model with Endogenous Treatment Status and Mediator  
Yi-Ting Chen and Yu-Chin Hsu and Hung-Jen Wang*

Uncertainty in efficiency predictions in common panel data stochastic frontier models  
Phill Wheat* and Andrew Smith

ThC-04: Decision support  
16:00-17:30, Nordia  
Session chair: Pekka Korhonen

A multiple criteria data envelopment analysis approach to two-stage processes  
Adel Hatami-Marbini and Mehdi Toloo

Marrying frontier analysis-based benchmarking and user-tailored decision support  
Jef Van Meensel* and Ludwig Lauwers

Non-convex value efficiency analysis  
Pekka Korhonen*, Merja Halme, and Juha Eskelinen

ThC-05: Energy 8  
14:00-15:30, Nautica  
Session chair: Luis Orea

Capital structure and ownership in regulated electricity distribution  
Astrid Cullmann, Maria Nieswand and Stefan Seifert

Estimation of efficiency levels in electricity consumption by Swiss households: A Stochastic frontier approach  
Nina Boogen,* Souvik Datta and Massimo Filippini

Estimating Market Power in Homogenous Product Markets Using a Composed Error Model: Application to the California Electricity Market  
Luis Orea* and Jevgenijs Steinbuks

ThC-06: Agriculture 5  
14:00-15:30, Press room  
Session chair: Christopher O’Donnell

Defining low input dairy farms across European countries: a frontier approach  
J. Hamerlinck, J. Van Meensel, J. Bijttebier, S. Moakes, J. Buysse, and L. Lauwers*

Land problems and efficiency in Salvadoran agriculture: A state-contingent approach  
Boris Bravo-Ureta, María Pérez-Urdiales,* and Alan Wall

Maize productivity and input subsidies in Malawi: A state-contingent stochastic production frontier approach  
S.T. Holden and Christopher O’Donnell*
Europaea

Fennia I

Marine room