



EWEPAXIX CONFERENCE PROGRAM

June 16th – 19th, 2026

Munich, Germany

Conference venue:

Science Congress Center Munich

Walther-Von-Dyck Str. 10, 85748 Garching bei München



FINAL VERSION

TUM School of Management
Technical University of Munich



CONFERENCE PROGRAM AT A GLANCE

Tuesday, June 16th	
08:00 – 09:00	Registration, Tea and Coffee
09:00 – 09:15	Welcome session
09:15 – 10:15	Plenary 1 – Mette Asmild
10:15 – 10:45	Coffee break
10:45 – 12:15	Parallel sessions
12:15 – 13:30	Lunch
13:30 – 15:00	PhD sessions
15:00 – 15:30	Coffee break
15:30 – 17:00	Parallel sessions
17:00 – 19:00	Welcome drinks (conference venue)
Wednesday, June 17th	
08:00 – 09:00	Registration, Tea and Coffee
09:00 – 10:00	Plenary 2 – Johan Swinnen
10:00 – 10:30	Coffee break
10:30 – 12:00	Parallel sessions
12:00 – 13:30	Lunch JPA meeting (Terra)
13:30 – 15:00	Parallel sessions
15:00 – 15:30	Coffee break
15:30 – 17:00	Parallel sessions
Thursday, June 18th	
08:00 – 09:00	Registration, Tea and Coffee
09:00 – 10:00	Plenary 3 – Christoph Kaserer
10:00 – 10:30	Coffee break
10:30 – 12:00	Parallel sessions
12:00 – 13:30	Lunch ISEAPA meeting (Terra)
13:30 – 15:00	Special plenary session in Honor of Knox Lovell
15:00 – 15:30	Coffee break
15:30 – 17:00	Parallel sessions
19:00 –	Conference dinner Augustiner Stammhaus Neuhauser Str. 27, 80331 München
Friday, June 19th	
09:00 – 10:30	Life Achievement Award to Erwin Diewert
10:30 – 11:30	Bavarian brunch
11:30 – 13:00	Parallel sessions
13:00 – 14:00	Light lunch
14:00 – 15:30	Parallel sessions
15:30 – 16:00	Coffee break
16:00 – 17:10	Parallel sessions
17:15 – 17:30	Closing session

DETAILS OF SCIENTIFIC PROGRAM

		Terra	Jupiter	Venus 1	Mars 1	Mars 2
Tue (16 th)	09:00 – 09:15	Welcome session				
	09:15 – 10:15	Plenary 1 Mette Asmild				
	10:45 – 12:15	Agriculture 1	SFA methods 1	Sustainability & eco-eff 1	Regulation & Governance 1	Energy 1
	13:30 – 15:00	PhD Session 1	PhD Session 2	PhD Session 3		
	15:30 – 17:00	Organized session 1: Efficiency & sustainability	DEA methods 1	Electricity	Banking & Finance 1	Education 1
Wed (17 th)	09:00 – 10:00	Plenary 2 Johan Swinnen				
	10:30 – 12:00	Special Session: Index numbers	Agriculture 2	SFA methods 2	Manufacturing 1	Health
	13:30 – 15:00	Organized Session 2: Agricultural TFP & Environment	DEA methods 2	Energy 2	Country analysis 1	Regulation & Governance 2
	15:30 – 17:00	Organized session 3: Composite indicators	Agriculture 3	Water	Productivity 1	Energy 3
Thu (18 th)	09:00 – 10:00	Plenary 3 Christoph Kaserer				
	10:30 – 12:00	DEA methods 3	Sustainability & eco-eff 2	ACM 1	Productivity 2	Oxera 1
	13:30 – 15:00	Special plenary session in Honor of Knox Lovell				
	15:30 – 17:00	Sustainability & eco-eff 3	ACM 2 + Oxera 2	Agriculture 4	Banking & Finance 2	Justice 1
Fri (19 th)	09:00 – 10:30	Life-time Achievement Award to Erwin Diewert				
	11:30 – 13:00	DEA methods 4	Productivity 3	Justice 2	Education 2	Sustainability & eco-eff 4
	14:00 – 15:30	Organized session 4: Efficiency in system design	Agriculture 5	SFA methods 3	Country analysis 2	Sustainability & eco-eff 5
	16:00 – 17:10	Manufacturing 2	Sustainability & eco-eff 6	Justice 3	Education 3	Gender & Social Efficiency
	17:15 – 17:30	Closing session				

TUESDAY JUNE 16th, 2026

Tue | 09:15-10:15 | Terra & Jupiter - Plenary 1

WHAT IS LURKING IN THE SHADOWS? INTERPRETING ENVIRONMENTAL TRADE-OFFS IN DEA
Mette Asmild, Professor, Section for Production, Markets and Policy, Department of Food and Resource Economics (IFRO), University of Copenhagen

Chair: Moriah Bostian

Tue | 10:45-12:15 | Terra - Agriculture 1

CLIMATE-SMART AGRICULTURE AND TECHNICAL EFFICIENCY UNDER EXTREME WEATHER: A LATENT CLASS STOCHASTIC FRONTIER ANALYSIS OF SOYBEAN FARMS IN SAO PAULO, BRAZIL
Larissa Gui Pagliuca; Marcelo Jose Carrer; Rodrigo Damasceno; Marcela de Mello Brandao Vinholis

PREDICTORS OF EMISSION-ADJUSTED EFFICIENCY IN POLISH CROP FARMS: NONLINEARITIES, INTERACTIONS AND POLICY THRESHOLDS
Jakub Staniszewski; Bazyli Czyzewski; Anna Matuszczak

TRADE-OFFS BETWEEN GOOD AND BAD OUTPUTS IN GERMAN DAIRY FARMS
Fabian Frick, Johannes Sauer

TECHNICAL EFFICIENCY OF SEEMINGLY “RELATED” COW AND CALF PRODUCTION.
Federico Garcia Suarez; Camilo Alvarez Garcia; Mercedes Motta

Tue | 10:45-12:15 | Jupiter - SFA Methods 1

INCORPORATING INTERMEDIATE OUTPUTS INTO SFA USING AN EQUATION SYSTEM APPROACH WITH APPLICATION TO TRANSPORT
Trang Tran; Phill Wheat; Alexander Stead; Andrew Smith

INCORPORATING INTERMEDIATE OUTPUTS INTO STOCHASTIC COST FRONTIER MODELS
Alexander Stead; Trang Tran; Phill Wheat

THE COST OF REGULARITY: EMPIRICAL EVIDENCE ON MONOTONICITY, QUASI-CONCAVITY, AND FRONTIER FLEXIBILITY
Pietro Sala; Maria Vrachioli; Fabian Frick; Johannes Sauer

DIFFERENCE-IN-DIFFERENCES WITH STOCHASTIC INEFFICIENCY
Christopher Parmeter; Samuele Centorrino

Tue | 10:45-12:15 | Venus 1 – Sustainability & Eco-efficiency 1

EVALUATING HEALTH, ENVIRONMENTAL AND CIRCULARITY TRADE-OFFS OF WASTE DERIVED FUELS IN THE CEMENT INDUSTRY
Maria Michali

NAVIGATING SUSTAINABILITY TRADE-OFFS: BENCHMARKING ORGANIC AND CONVENTIONAL DAIRY FARMS UNDER CARBON TAXATION
Andreas Michael Wolff; Mette Asmild

HOW DOES RESTORATION SHIFT THE FRONTIER: THE ECO-EFFICIENCY OF SPECIES-RICH GRASSLANDS

Moritz Leonhard Ptacek

FARMERS' OPPORTUNITY COSTS OF BIODIVERSITY PROVISION AND AGRI-ENVIRONMENTAL PAYMENTS

Carolin Canessa, Philipp Mennig, Johannes Sauer

Tue | 10:45-12:15 | Mars 1 – Regulation & Governance 1

IMPACT OF OPERATING SUBSIDIES ON SEWERAGE EFFICIENCY

Tomohiro Kitamura

MODELING SPATIAL COOPETITION IN ENVIRONMENTAL EFFICIENCY: A NON-PARAMETRIC APPROACH FOR FAIR REGIONAL GOVERNANCE

Yunlong Zhang; Emili Grifell-Tatje; Zhiyang Shen

EFFICIENCY OF CENTRAL GOVERNANCE: A STOCHASTIC INPUT DISTANCE FUNCTION ANALYSIS

Nan Jiang

A DEA BASED MODEL OF SEWAGE TREATMENT COSTS WITH MULTIPLE PLANTS AND SHARED OPERATIONAL MANAGEMENT

David Saal; Takayoshi Nakaoka; Tomoyasu Tanaka

Tue | 10:45-12:15 | Mars 2 – Energy 1

EXPLORING CONDITIONAL DEA FOR DETERMINING REVENUE CAPS FOR NORWEGIAN ELECTRICITY DSOS

Havard Bergheim Holvik

THE EFFECT OF SMALL-SCALE ELECTRICITY GENERATION ON THE COST AND EFFICIENCY OF ELECTRICITY DISTRIBUTORS: A THRESHOLD RIDGE APPROACH

Fatemeh Jamhiri; Kristofer Mansson; Par Sjolander

A CIRCULAR SLACKS-BASED METAFRONTIER PSEUDO-MALMQUIST INDEX FOR GROUP PERFORMANCE COMPARISON: APPLICATION TO GLOBAL PETROLEUM FIRMS

Kwaku Ohene-Asare; Emily Asaa Addison; Eric D. Ofosu-Hene

STATIC AND DYNAMIC EFFICIENCY ASSESSMENT FOR EUROPEAN GAS TRANSMISSION: THE ACER STUDY

Per J. Agrell

Tue | 13:30-15:00 | Terra – PhD Session 1

Chair: Herve Dakpo

CONDITIONAL FRONTIER DIAGNOSTICS OF STRUCTURAL PRODUCTIVITY CONSTRAINTS UNDER CLIMATE STRESS: EVIDENCE FROM KENYAN SMALLHOLDER AGRICULTURE

Denis Momanyi

Discussant: Ariel Ortiz-Bomba

UNDERSTANDING THE RELATIONSHIP BETWEEN U.S. AGRICULTURAL LABOR AND MACHINERY

Linge Yang

Discussant: Simone Pieralli

BY-PRODUCTION EFFICIENCY ANALYSIS UNDER A CAP-AND-TRADE FRAMEWORK

Nicolas Marissiaux

Discussant: Herve Dakpo

Tue | 13:30-15:00 | Jupiter – PhD Session 2

Chair: Frederic Ang

META GREEN INNOVATION EFFICIENCY IN EUROPEAN REGIONS: SPATIAL SPILLOVERS FROM REGIONAL FINANCIAL DEVELOPMENT

Myungjun Kim

Discussant: Stavros Kourtzidis

ECONOMIES OF SCOPE IN CONVENTIONAL AND ORGANIC FARMING

William Louis Reingaard Vissing

Discussant: Tamas Krisztin

TRANSITIONING FROM LIVESTOCK TO CROP PRODUCTION: A BAYESIAN STOCHASTIC RAY PRODUCTION FRONTIER ANALYSIS

Jeronya Mbiat Petnkeu

Discussant: Frederic Ang

Tue | 13:30-15:00 | Venus 1 – PhD Session 3

Chair: Chris O'Donnell

A COPULA-BASED FRAMEWORK FOR IDENTIFYING CONGESTION IN DATA ENVELOPMENT ANALYSIS

Zakiatul Wildani

Discussant: Cinzia Daraio

EVALUATING TEACHING EFFICIENCY IN EUROPEAN UNIVERSITIES USING NONPARAMETRIC TECHNIQUES

Andreea Monica Munteanu

Discussant: Chris Parmeter

EVALUATING MULTIDIMENSIONAL PERFORMANCE IN THE EUROPEAN UNION: A COMPOSITE INDEX APPROACH TO EUROPE 2030

Jonathan Alulea Pembwe

Discussant: Chris O'Donnell

Tue | 15:30-17:00 | Terra – Organized session 1: Efficiency and Sustainability

EFFICIENCY AND SUSTAINABILITY IN EUROPEAN AGRICULTURE: EVIDENCE FROM THE AGENRES PROJECT

This organized session presents selected results from the AgEnRes project, focusing on the joint assessment of productivity, environmental performance, and energy efficiency in European agriculture. The contributions combine methodological advances in efficiency and frontier analysis with newly integrated economic, structural, and environmental data. By linking FADN, structural surveys, and biophysical indicators, the papers move beyond conventional productivity measures toward multidimensional performance assessment. Empirical evidence covers multiple European countries and production systems, with particular attention to energy use, emissions, and policy impacts. Together, the session offers insights relevant for researchers and policymakers concerned with sustainable agricultural transitions.

ENVIRONMENTAL PRODUCTIVITY MEASUREMENT USING SHADOW PRICES: AN APPLICATION TO DUTCH DAIRY FARMS

Kexin Wang

INTEGRATING ECONOMIC, STRUCTURAL AND ENVIRONMENTAL DATA FOR MULTI-DIMENSIONAL EFFICIENCY ANALYSIS IN EUROPEAN AGRICULTURE

Tamás Krisztin

A CROSS-COUNTRY COMPARISON OF LONG- AND SHORT-TERM NON-RENEWABLE ENERGY USE EFFICIENCY IN EUROPEAN AGRICULTURE

K. Herve Dakpo

TECHNOLOGICAL HETEROGENEITY AND HETEROGENEOUS SUBSIDY EFFECTS ON TECHNICAL EFFICIENCY: EVIDENCE FROM SWEDISH DAIRY FARMS

Zhen Chen; Ioannis Skevas; Vivian Wei Hung

Tue | 15:30-17:00 | Jupiter – DEA Methods 1

DEVELOPMENT AND APPLICATION OF A METHODOLOGY FOR ASSESSING THE EFFICIENCY OF SUSTAINABLE DEVELOPMENT USING DEA, SHANNON ENTROPY, AND MACHINE LEARNING

Thomas E. Pappas; Roxani Karagiannis; Georgios Tsaples; Andreas C. Georgiou

GAIN-LOSS PORTFOLIO EFFICIENCY AND ASSET-PRICING BOUNDS: A DIRECTIONAL DISTANCE APPROACH

Maryam Hasannasab; Dimitris Margaritis

EVERY COIN HAS TWO SIDES: AN EXTENDED FRAMEWORK FOR MODELING BENEFICIAL AND HARMFUL BY-PRODUCTS

Yunguo Mu; Zhiyang Shen; Michael Vardanyan

ENHANCING FDH BY PRODUCTION TRADE-OFFS

Mahmood Mehdiloo; Grammatoula Papaioannou; Victor Podinovski

Tue | 15:30-17:00 | Venus 1 – Electricity

DISTINGUISHING HIGH-IMPACT AND ATYPICAL OUTLIERS IN REGULATION: EVIDENCE FROM GERMAN ELECTRICITY NETWORKS

Mohsen Afsharian; Peter Bogetoft

TOTEX-BASED REGULATORY BENCHMARKING: EUROPEAN LESSONS FOR THE BRAZILIAN ELECTRICITY DISTRIBUTION FRAMEWORK

Ana Lopes Ahn; Bruno Vilela; Heinz Ahn Heinz; Carolin Ladda; Roberto Mesquita; Roger dos Reis Alves

OPTIMAL MERGERS AND SECTOR RESTRUCTURING

Peter Bogetoft

FRONTIER REGULATION OF ELECTRICITY DISTRIBUTION: WHY ECONOMISTS ARE WRONG AND ENGINEERS ARE ONLY HALF RIGHT

Kristiaan Kerstens; Stefano Nasini; Miguel Alves Pereira

Tue | 15:30-17:00 | Mars 1 – Banking & Finance 1

A GROUP-BASED PROFITABILITY GAP DECOMPOSITION MODEL: AN APPLICATION TO TAIWANESE AND CHINESE CITY BANKS

Xiang Chen; Xisi Chen

THE EFFECT OF CORPORATE SOCIAL RESPONSIBILITY ON BANK PERFORMANCES: AN APPLICATION OF NETWORK STOCHASTIC FRONTIER ANALYSIS

Chu-Nan Hu; Kuo-Jui Huang

ASSESSING THE EFFICIENCY OF EUROPEAN LISTED REGIONAL BANKS: A CONDITIONAL NONPARAMETRIC APPROACH

Anamaria Aldea; Luiza Bădin; Carmen Lipara

COST, OUTREACH AND GENDER: AN EMPIRICAL ANALYSIS OF SOUTH ASIAN MICROFINANCE INSTITUTIONS

Sayati Ghosh; Simanti Bandyopadhyay

Tue | 15:30-17:00 | Mars 2 – Education 1

FEED A COLD: NEW EVIDENCE ON THE IMPACT OF COVID-19 ON SCHOOL ATTENDANCE AND ACHIEVEMENT

Kathy Hayes; Lori Taylor; Shawna Grosskopf; Laura Razzolini

ZERO INEFFICIENCY AND LATENT CLASS STOCHASTIC FRONTIER MODEL AND ITS APPLICATION

Yi-Wun Chen

TWO DECADES OF PUBLIC SPENDING EFFICIENCY IN EU COMPULSORY EDUCATION

Giovanni Antonini; Tommaso Agasisti

NETWORK DEA MODEL FOR EFFICIENCY ANALYSIS OF THE UNIVERSITIES IN THE UK

Akram Dehnokhalaji; Oleg Badunenko

WEDNESDAY JUNE 17th, 2026

Wed | 09:00-10:00 | Terra & Jupiter - Plenary 2

FINANCING AGRICULTURAL PRODUCTIVITY GROWTH IN TIMES OF GLOBAL DISORDER

Johan Swinnen, Director General, International Food Policy Research Institute (IFPRI)

Chair: Spiro E. Stefanou

Wed | 10:30-12:00 | Terra – Special session: Index numbers

WHAT SHOULD A PRODUCTIVITY INDEX MEASURE? COHERENCE, AGGREGATION, AND INDEX NUMBER THEORY

Chair: Christopher Parmeter

ON THE THEORY AND PRACTICE OF PROPER INDEXES

Erwin Diewert

PROPER QUANTITY INDEXES FOR COHERENT PRODUCTIVITY COMPARISONS

Christopher O'Donnell

Wed | 10:30-12:00 | Jupiter – Agriculture 2

HOW CAP SUBSIDIES AFFECT TECHNICAL EFFICIENCY: EVIDENCE FROM HUNGARIAN DAIRY FARMS USING AN ENDOGENEITY-CORRECTED DYNAMIC BAYESIAN SFA

Lajos Barath; Andrzej Pisulewski; Imre Fertó; Jerzy Marzec

IS BIO-INPUT ADOPTION ASSOCIATED WITH TECHNICAL EFFICIENCY? EVIDENCE FROM SOYBEAN FARMS IN BRAZIL

Rodrigo Damasceno; Marcelo Jose Carrer; Hildo Meirelles de Souza Filho; Marcelo de Mello Brandao Vinholis; Larissa Gui Pagliuca

A SYSTEMATIC REVIEW OF THE NET CONTRIBUTION OF PESTICIDES ON AGRICULTURE: ACCOUNTING FOR ECONOMIC, ENVIRONMENTAL, AND SOCIAL EFFECTS

Xiaojie Wen; Niklas Mohring

A PROXY-VARIABLE INPUT DISTANCE FUNCTION FOR MULTI-OUTPUT PRODUCTION: EVIDENCE ON FERTILIZER AND PESTICIDE REDUCTION IN EU AGRICULTURE

Lukas Cechura; Zdenka Zakova Kroupova; Jiri Vacek; Subal C. Kumbhakar

Wed | 10:30-12:00 | Venus 1 – SFA Methods 2

STANDARD STOCHASTIC FRONTIER ANALYSIS FRAMEWORK WITH DEPENDENCY BETWEEN INEFFICIENCY AND NOISE

Zangin Zeebari; Scott Hacker

INCORPORATING INTERMEDIATE OUTPUTS INTO SFA USING AN EQUATION SYSTEM APPROACH: AN EXTENSION TO PANEL DATA

Phill Wheat

PUBLIC SUBSIDY AND COST EFFICIENCY IN FINNISH THEATRES

Christopher Parmeter; Marta Zieba

SHAPE-AWARE DEEP LEARNING FOR MODELS OF PRODUCTION

Artem Prokhorov; Zheng Wei; Huiyan Sang; Yu Ma

Wed | 10:30-12:00 | Mars 1 – Manufacturing 1

SIZE THRESHOLDS AND THE ADOPTION OF AI-BASED TECHNOLOGIES: EVIDENCE FROM SPANISH MANUFACTURING FIRMS

Luis Orea; Inmaculada Alvarez; Christopher Parmeter; Desiderio Romero

FROM FUNDS TO FRONTIERS: HOW PON E&C SHAPES EFFICIENCY IN ITALIAN MANUFACTURING SECTOR

Marco Alberto De Benedetto; Camilla Mastromarco; Anna Rita Dipierro

PARETO KOOPMANS EFFICIENCY AT THE UNIT AND THE INDUSTRY LEVEL: AN APPLICATION TO INDIAN MANUFACTURING

Subhash C Ray

COMPARING PERFORMANCE USING ADDITIVE MODELS BASED ON REGRESSION SPLINES: AN APPLICATION TO FIRMS IN MAJOR EUROPEAN COUNTRIES WITHIN THE MEAT MANUFACTURING INDUSTRY

Juan Aparicio; Victor J. Espana; Magdalena Kapelko

Wed | 10:30-12:00 | Mars 2 – Health

WHEN PARALLEL NETWORK DEA MEETS AGGREGATED DATA: LIMITS OF PROCESS-LEVEL DIAGNOSIS IN PUBLIC HOSPITALS

Marta Abreu; Miguel Pereira

THE MANAGERIAL USE OF EFFICIENCY INFORMATION IN PUBLIC HOSPITALS

Paul Rouse; Dimitris Margaritis

A MULTI-FRONTIER APPROACH TO SUSTAINABILITY: PRODUCTIVITY ANALYSIS IN ECONOMIC, ENVIRONMENTAL, AND SOCIAL DIMENSIONS

Wenzhuo Zhou; Zhiyang Shen; Michael Vardanyan

MAPPING DIET EFFICIENCY GAPS: A SLACK-BASED BENCHMARKING APPROACH

Gabriel Rosero; Liesbeth Colen

Wed | 13:30-15:00 | Terra – Organized session 2: Agricultural TFP and environment

Session organized by the European Commission Joint Research Centre

AGRICULTURAL PRODUCTIVITY SLOWDOWN UNDER ENVIRONMENTAL PRESSURE: COMPETITIVENESS IMPLICATIONS ACROSS SCALES

Agricultural productivity growth is central to global food security, farm incomes, and environmental sustainability, yet recent decades have witnessed a marked slowdown in total factor productivity (TFP). This session examines the role of weather extremes and climate change as non-marketed inputs shaping agricultural performance from global to local scales. Combining macro-level evidence with micro-level farm data, the contributions assess the persistence, magnitude, and distributional effects of climate shocks on productivity and competitiveness. The session emphasizes policy-relevant insights on resilience and adaptation in an increasingly competitive international environment. A clear message for policymakers is complemented by methodological discussion and audience engagement.

Chair: Simone Pieralli

Discussant: Bob Chambers

THE PERSISTENCE OF CLIMATE SHOCKS ON GLOBAL AGRICULTURAL PRODUCTIVITY GROWTH

Ariel Ortiz-Bobea; Yurou He; David B. Lobell

AN ENVIRONMENTAL EXTENSION OF THE FARM ACCOUNTANCY DATA NETWORK USING GEOLOCATIONS: A CASE STUDY ON FARM CLIMATE VULNERABILITY

Ana Klinnert; Kevin Schneider

MEASURING THE EXTREME EFFECTS OF WEATHER ON FRENCH AGRICULTURAL FARMERS

Simone Pieralli

Wed | 13:30-15:00 | Jupiter – DEA Methods 2

EXTENSIONS OF DEA–MARKOV MODELS WHEN TARGETS, PLANNING HORIZON AND DMUS ARE CO-DESIGNED

Andreas Georgiou; Emmanuel Thanassoulis; Konstantinos Kaparis; Georgios Tsaples

NONPARAMETRIC PRODUCTION APPROACH TO HEDONIC PRICE FUNCTIONS

Kassoum Ayouba; Herve Leleu

WINDOW-BASED DYNAMICS IN CHANCE-CONSTRAINED DATA ENVELOPMENT ANALYSIS MODEL WITH OPTIMAL CONTROL THEORY PRINCIPLES: A TOTAL COST EFFICIENCY MODEL

Paulo Nocera Alves Junior; Isotilia Costa Melo

A THREE-STAGE NETWORK DEA APPROACH FOR MODELING RESILIENCE AND DYNAMIC EFFICIENCY UNDER EXTREME CLIMATE EVENTS

Juan Pablo Henao Henao; Maria Vrachlioli; Roberto Villalba; Johannes Sauer

Wed | 13:30-15:00 | Venus 1 – Energy 2

EFFICIENCY MEASUREMENT THROUGH NON-PARAMETRIC AND PARAMETRIC TECHNIQUES: ACCOUNTING FOR SAMPLE HETEROGENEITY AND CONTEXTUAL VARIABLES IN EUROPEAN ELECTRICITY DSO

Rui Rita; Vitor Marques; Diogo Bárbara

PERSISTENT AND TRANSIENT PRODUCTIVE INEFFICIENCY IN THE SWISS HYDROPOWER SECTOR

Samuel Schenk; Massimo Filippini

THE EFFECTS OF SETTLEMENT STRUCTURES AND WIND PARK PLANNING ON THE EFFICIENCY OF ELECTRICITY DISTRIBUTION IN SWEDEN

Maria Nieswand

COST WEIGHTS AS MODEL OUTPUT IN A WORLD OF RAPID AND ASYMMETRIC PRICE INCREASES

Brita Engen Finne; Kathrine Aasvik

Wed | 13:30-15:00 | Mars 1 – Country Analysis 1

MEASURING AND EXPLAINING RESOURCE IMPACTS ON GLOBAL INNOVATION PERFORMANCES

Barnabe Walheer

SPATIAL SPILLOVERS AND PROVINCIAL ECONOMIC EFFICIENCY IN VIETNAM: EVIDENCE FROM A SPATIAL STOCHASTIC FRONTIER APPROACH

Thanh Viet Nguyen; Michel Simioni

FRONTIER ANALYSIS OF ECO-EFFICIENCY GAPS: EVIDENCE FROM EUROPEAN COUNTRIES

Golnaz Amjadi; Charles-Henri Di Maria

MEASURING PRODUCTIVITY GROWTH USING MACHINE LEARNING. AN APPROACH BASED ON EFFICIENCY ANALYSIS TREES APPLIED TO OECD COUNTRIES

Mateusz Wojniak; Magdalena Kapelko; Juan Aparicio; Marta Zieba

Wed | 13:30-15:00 | Mars 2 – Regulation & Governance 2

BEYOND EVALUATION SUITES FOR LLMS: ROBUST PARTIAL-FRONTIER COST-EFFECTIVENESS USING TOKEN PRICES AND USER PREFERENCES

Simone Di Leo

WHY TAX ADMINISTRATIONS DO NOT FULLY ENFORCE: A RATIONAL INEFFICIENCY APPROACH

Ebrahim Rezaei; Josef Jablonsky

POLITICS, REVEALED PREFERENCES AND LOCAL SPENDING PERFORMANCE: A BENEFIT OF THE DOUBT APPROACH

Lorenzo Catalano; Giovanna D'Inverno; Kristof De Witte

CONSUMPTION EFFICIENCY AND POPULATION AGING: EVIDENCE FROM EXPENDITURE FRONTIERS IN BRAZIL

Alexandre Nunes Almeida; Carlos R. Azzoni; Subal C. Kumbhakar

Wed | 15:30-17:00 | Terra – Organized session 3: Composite indicators

BENCHMARKING AND MONITORING WITH COMPOSITE INDICATORS

This organized session brings together researchers and practitioners working on the methodological development and applied use of composite indicators and scoreboards. Co-organised in collaboration with the European Commission's Joint Research Centre and the Competence Centre on Composite Indicators and Scoreboards (CC-COIN), the session highlights recent advances in Benefit-of-the-Doubt and related frameworks. The contributions cover innovations in benchmarking methodologies as well as applications to health care, education, justice, industry, social rights, and regional development. Emphasis is placed on robustness, conditional assessments, and interpretability for policy monitoring. The session aims to foster interdisciplinary exchange and strengthen links between research and policy practice.

Chair: Giannis Karagiannis

A GENERALIZED DIRECTIONAL DISTANCE BENEFIT OF THE DOUBT MODEL FOR INTERVAL INDICATOR DATA

Nicky Rogge

SUSTAINABLE RURAL DEVELOPMENT IN SEMIARID REGIONS: A STUDY OF THE CAATINGA BIOME IN BRAZIL

Jefferson Staduto; Andreia Zanella; Hermilio Vilarinho; Ana S. Camanho

UNVEILING COMPANY READINESS FOR INDUSTRY 4.0 USING BENEFIT-OF-THE-DOUBT MODELS

Hermilio Vilarinho; Andre Guimaraes; Eduardo Oliveira; Teresa Pereira

A ROBUST CONDITIONAL ASSESSMENT OF PERFORMANCE TRENDS IN EDUCATION AND TRAINING SYSTEMS OF EUROPEAN REGIONS

Fernando J. Osorio; Flavia Barbosa; Giovanna D’Inverno; Ana S. Camanho

AN INTERVAL SCALE BENEFIT-OF-THE-DOUBT MODEL

Roxani Karagiannis; Giannis Karagiannis

A COMPOSITE PERFORMANCE INDICATOR FOR COURTS OF JUSTICE

Giannis Karagiannis; Stavros Kourtzidis; Panagiotis Ravanos

EVALUATING THE EUROPEAN PILLAR OF SOCIAL RIGHTS: A BENEFIT-OF-THE-DOUBT APPROACH WITH COMMON WEIGHTS

Laura Carosi; Giovanna D’Inverno; Davide Zucchini

Wed | 15:30-17:00 | Jupiter – Agriculture 3

MANAGEMENT CONTROL SYSTEMS AND PRODUCTIVE PERFORMANCE OF SPANISH AGRI-FOOD SMES

Beatriz Garcia-Cornejo; Jose Antonio Perez-Mendez; Alan Wall

BALANCING ENVIRONMENTAL, SOCIAL, AND ECONOMIC SUSTAINABILITY GOALS: TRADE-OFFS FACED BY SMALLHOLDER FARMERS IN CHINA

Gaofei Yang; Maria Vrachioli; Johannes Sauer

SENSITIVITY OF FARM RESILIENCE TO ALTERNATIVE DROUGHT THRESHOLDS: THE CASE OF SMALLHOLDER FARMING IN MALAWI

Carlos Boke Pascual; Fabian Frick; Johannes Sauer

IDENTIFYING THE IMPACTS OF CLIMATE AND WEATHER ON ARABLE FARMS' PERFORMANCE

Raushan Bokusheva

Wed | 15:30-17:00 | Venus 1 – Water

ANALYSING PRODUCTIVITY AND EFFICIENCY IN THE NORWEGIAN AQUACULTURE INDUSTRY: A METAFRONTIER DEA APPROACH

Yajie Liu

VALUING WATER QUALITY AND QUANTITY TRADE-OFFS FROM IRRIGATION: AN INTEGRATED BIO-PHYSICAL - PRODUCTIVITY APPROACH

Tiho Ancey; Moriah Bostian; Akash Ghokale; Francisco Rosas

EVALUATING IRRIGATION WATER PRODUCTIVITY, SHADOW PRICES, AND PER-HECTARE WATER VALUATION IN VINEYARDS USING STOCHASTIC FRONTIER ANALYSIS

Carlos Bopp; Roberto Jara-Rojas; Boris Bravo-Ureta; Alejandra Engler

LINKING SUSTAINABILITY EFFICIENCY TO FARMERS' WILLINGNESS TO ADOPT IMPROVED WASTEWATER MANAGEMENT: EVIDENCE FROM COLOMBIAN COFFEE FARMS

Maria Vrachioli; Amer Ait Sidhoum

Wed | 15:30-17:00 | Mars 1 – Productivity 1

INTANGIBLES IN TANGIBLE PRODUCTIVITY DISCREPANCIES

Charles-Henri DiMaria

STATISTICAL INFERENCE FOR CONSUMER PRICE INDICES

Valentin Zelenyuk; Shirong Zhao

MAKING INFERENCES ABOUT DIFFERENCES IN PRODUCTIVITY ACROSS GROUPS IN NON-PARAMETRIC, CROSS-SECTIONAL SETTINGS

Paul Wilson

SATO-VARTIA PRODUCTIVITY INDEX

Hideyuki Mizobuchi; Valentin Zelenyuk

Wed | 15:30-17:00 | Mars 2 – Energy 3

IS SPAIN'S ENERGY VOUCHER LIGHTING THE WAY FOR THE POOR? A MICROECONOMIC EVALUATION OF THE BONO SOCIAL ELECTRICO

Ana Rodriguez; Manuel Llorca

CARBON MITIGATION COST WITH MARKET DISTORTIONS: EVIDENCE FROM POWER PLANTS IN CHINA

Chunbo Ma

BALANCING OUTPUT GROWTH AND ENERGY EFFICIENCY GOALS IN INDIAN MANUFACTURING: SOME ALTERNATIVE SCENARIOS

Kankana Mukherjee

INTEGRATING EXERGY INTO DEA: A THERMODYNAMICALLY CONSTRAINED EFFICIENCY BENCHMARK

Anatoliy Goncharuk; Bires Sahoo

THURSDAY JUNE 18th, 2026

Thu | 09:00-10:00 | Terra & Jupiter - Plenary 3

THE COST OF CAPITAL IN REGULATED NETWORKS: HAVE WE MADE ANY PROGRESS?

Christoph Kaserer, Dean of TUM School of Management and Professor of Finance, Technical University of Munich

Chair: Johannes Sauer

Thu | 10:30-12:00 | Terra – DEA Methods 3

ENDOGENEITY IN NONPARAMETRIC PANEL DATA ESTIMATION: APPLICATION TO CONDITIONAL PRODUCTION FRONTIERS

Camilla Mastromarco; Leopold Simar; Anne Vanhems

SINGLE INDEX MODELS FOR NONPARAMETRIC CONDITIONAL FRONTIERS

Catherine Cazals; Jean-Pierre Florens; Leopold Simar

GUIDING INTO THE NEW SPACE ERA: AN EFFICIENCY EVALUATION OF ITALIAN SPACE FIRMS

Pierluigi Toma; Anna Rita Dipierro

COMBINING MULTICRITERIA METHODS WITH EFFICIENCY ANALYSIS: A CONICAL FDH DIRECTIONAL LUENBERGER APPROACH INCLUDING TIME-VARYING PREFERENCES

Cinzia Daraio; Thyago Nepomuceno; Leopold Simar

Thu | 10:30-12:00 | Jupiter – Sustainability & Eco-efficiency 2

PERSPECTIVES FOR BRAZILIAN SOCIOBIODIVERSITY PRODUCTION: A REGIONAL ANALYSIS FOR THE PERIOD 2008-2025

Luisa Fancelli Coelho; Humberto Francisco Silva Spolador

ECONOMIC AND ENVIRONMENTAL EFFICIENCY IN EUROPE: A BY-PRODUCTION DEA ACROSS INDUSTRY SECTORS.

Rodrigo Cestau; Pablo Arocena

PROBABILISTIC EFFICIENCY ANALYSIS USING INTERPRETABLE ARTIFICIAL INTELLIGENCE: ASSESSING THE ROLE OF ENVIRONMENTAL VARIABLES

Ricardo Gonzalez-Moyano; Juan Aparicio Baeza; Jose Luis Zofio Prieto

MINING, MILLS, AND EMISSIONS: DECOMPOSING EMISSION-REDUCTION PATHWAYS IN GLOBAL STEEL SUPPLY CHAINS

Erik Enstad; Giacomo Benini; Lars Jaffke

Thu | 10:30-12:00 | Venus 1 – ACM 1 session

EFFICIENCY OF ENERGY NETWORKS IN TRANSITION: REGULATORY CHALLENGES

Chair: Marcel Vermeulen

NETWORK REGULATION IN THE ENERGY TRANSITION: BALANCING INCENTIVES

Gert Brunekreeft

ADAPTATION OF INCENTIVE MECHANISMS BASED ON REGULATORY INDEPENDENCE – THE CASE OF GERMANY

Jean-Marc Behringer

GROWTH AND CONSUMER PROTECTION WHEN SETTING PRICE CONTROLS IN THE UK

Cyrus Gajari

PRACTICAL LESSONS FROM EUROPEAN ENERGY NETWORK REGULATION: BALANCING INVESTMENT, RESILIENCE, EFFICIENCY, AND AFFORDABILITY

Srini Parthasarathy

Thu | 10:30-12:00 | Mars 1 – Productivity 2

NONLINEAR PANEL DATA MODELS WITH ROBUST CORRELATED RANDOM EFFECTS WITH APPLICATION TO THE PUBLIC CAPITAL PRODUCTIVITY PUZZLE

Daniel Henderson; Emma Kate Henry; Andros Kourtellos

AN INDUSTRY-LEVEL MEASURE OF QUALITY-ADJUSTED HUMAN CAPITAL IN THE EUROPEAN UNION

Juan Duran; Michelle Alicia Jordan; Iulia Siedschlag

THE WORKLOAD–PERFORMANCE RELATIONSHIP WHEN OVERSEEING ALGORITHMIC SYSTEMS

Changyu Men; Maud Van den Broeke; Marijn Verschelde; Bart Roets

ANALYZING LABOR PRODUCTIVITY CHANGES IN THE GERMAN BREWING INDUSTRY

Giannis Karagiannis; Magnus Kellerman; Klaus Salhofer

Thu | 10:30-12:00 | Mars 2 – Oxera 1 session

PUSHING THE FRONTIER: EFFICIENCY & PRODUCTIVITY DEBATES IN GERMAN ENERGY REGULATION

Chairs: Stefan Schröder & Philipp Schliffke

SETTING THE SCENE – LATEST DEVELOPMENTS REGARDING XGEN AND XIND

Polynomics

SETTING XGEN UNDER UNCERTAINTY: PRODUCTIVITY TARGETS, FORECAST ERRORS, AND REGULATORY RESILIENCE

Mario Liebensteiner

E-CONTROL'S APPROACH TO XIND AND XGEN

Sebastian Brunner

LEGAL PERSPECTIVES ON THE STATE OF THE ART IN SCIENCE AND ITS APPLICATION TO GERMAN REGULATION

Jan Dreyer

CURRENT DISCUSSIONS WITHIN THE NEST PROCESS AND CONCLUDING REMARKS

Stefan Schröder

Thu | 13:30-15:00 | Terra & Jupiter - Special plenary session in honor of Knox Lovell

COMMENTS ON KNOX LOVELL'S LIFE OF CONTRIBUTIONS TO OUR SCIENCE OF EFFICIENCY AND PRODUCTIVITY ANALYSIS

Chair: Robin E. Sickles

ON THE ORIGINS OF AIGNER, LOVELL AND SCHMIDT, 1977 AND THE DEVELOPMENT OF STOCHASTIC FRONTIER ANALYSIS

Peter Schmidt

A PRESENTATION OF KNOX LOVELL'S LAST PUBLICATION: MEASURING CLIMATE RISKS: A NEW MULTIDIMENSIONAL INDEX FOR GLOBAL VULNERABILITY AND RESILIENCE

(by Johanna Fajardo-Gonzalez, C.A. Knox Lovell, Julie Lovell, Heidi Edmonds, Environmental Development, Volume 56, September 2025, 101227)

Valentin Zelenyuk

LATENT CLASS MODELS WITH PERSISTENCE IN REGIME CHANGES: A DISTRIBUTED LAG ANALYSIS

(forthcoming in Journal of Productivity Analysis Special Issue in Memory of C. A. Knox Lovell)

Luis Orea Sanchez

Thu | 15:30-17:00 | Terra – Sustainability & Eco-efficiency 3

MEASUREMENT, DECOMPOSITION AND DETERMINANTS OF GREENHOUSE GAS EMISSION EFFICIENCY: AN APPLICATION TO AUSTRIAN DAIRY FARMS

Andreas Eder

FARM-LEVEL ENVIRONMENTALLY SUSTAINABLE PRODUCTIVITY AND PRECISION AGRICULTURE

Maria Vrachioli; Dejana Golic; Tassos Haniotis; Tamas Krisztin

VALUING POLLUTION-GENERATING COMMODITIES: A SHADOW PRICING APPROACH.

Arnaud Abad; Walter Briec; Paola Ravelojaona

SHADOW PRICING ECOSYSTEM SERVICES IN BOREAL FORESTS

Moriah Bostian; Shuyi Wang; Tommy Lundgren

Thu | 15:30-17:00 | Jupiter – ACM 2 & Oxera 2 session

EFFICIENCY OF ENERGY NETWORKS IN TRANSITION: PERFORMANCE MEASUREMENT

Chair: Marcel Vermeulen & Philipp Schliffke

PRODUCTIVITY INDEX NUMBERS IN THE REGULATION OF AUSTRALIAN ELECTRICITY NETWORKS

Michael Cunningham

REFERENCE NETWORK ANALYSIS FOR EFFICIENCY ASSESSMENT OF THE GERMAN TRANSMISSION SYSTEM OPERATORS FOR ELECTRICITY

Alexander Fuchs

THE ACER PAN-EUROPEAN BENCHMARKING STUDY

Miguel Martinez

REFLECTIONS ON NATIONAL AND INTERNATIONAL BENCHMARKING AND BUSINESS IMPACT

Bayernets

SELECTED ASPECTS OF XGEN AND XIND

Netze BW

Thu | 15:30-17:00 | Venus 1 – Agriculture 4

ADOPTION OF CROP–LIVESTOCK INTEGRATION AND TECHNICAL EFFICIENCY IN SOYBEAN FARMING: EVIDENCE FROM SAO PAULO, BRAZIL

Larissa Aparecida Lopes de Souza; Marcelo Jose Carrer; Marcela de Mello Brandao Vinholis; Aduino Brasilino Rocha Jr.; Larissa Gui Pagliuca; Rodrigo Damasceno

AGRICULTURAL PRODUCTIVITY AND CARBON DIOXIDE EMISSIONS IN BRAZIL: EVIDENCE FOR THE BORLAUG HYPOTHESIS

Ricardo Muniz Simões; Humberto Francisco Silva Spolador

CONSISTENT AGGREGATION AND DECOMPOSITION OF PRODUCTIVITY CHANGE: APPLICATION TO ENERGY PRODUCTIVITIES IN NORWEGIAN FISHERIES

Kenneth Løvold Rødset; Kristin Helen Roll; Timo Kuosmanen

CAN PRICE INCENTIVES DRIVE LEGUME ADOPTION? A TECHNICAL AND ECONOMIC BEST PRACTICES STUDY FROM FRANCE

Jean-Philippe Boussemart; Mae Guinet; Salome Kahindo; Munier-Jolain; Romain Nandillon; Raluca Parvulescu

Thu | 15:30-17:00 | Mars 1 – Banking & Finance 2

MICROFOUNDATIONS IN MEASUREMENT AND THEORY

Junyi Zhu

ASYMMETRIC PASS-THROUGH OF THE CENTRAL BANK’S POLICY RATE TO BANKS’ RETAIL RATES: EVIDENCE FROM PAKISTAN’S BANK-LEVEL DATA

Alfred Haug; Dorian Owen; Syed Hussain

BEYOND STATIC EFFICIENCY: A DYNAMIC DEA MODEL FOR SUSTAINABLE MUTUAL FUNDS

Alfons Oude Lansink; Magdalena Kapelko; Albane Tarnaud

RISK-RETURN-ESG INEFFICIENCY OF EUROPEAN MUTUAL FUNDS: A BY-PRODUCTION APPROACH

Alfons Oude Lansink; Magdalena Kapelko; Albane Tarnaud

Thu | 15:30-17:00 | Mars 2 – Justice 1

THE JUSTICE PRODUCTION TECHNOLOGY

Giannis Karagiannis; Antonio Peyrache; Angelo Zago; Osman Zaim

A HYBRID COST EFFICIENCY MODEL UNDER FIXED AND NON-FIXED PRICES: A CASE STUDY ON THE POLISH JUSTICE COURTS

Magdalena Kapelko; Dimitrios Sotiros; Sebastian Tomczak

ADOPTION OF TECHNOLOGY AND ITS CONSEQUENCES FOR PERFORMANCE-SWEDISH DISTRICT COURTS

Jonas Mansson; Christopher O'Donnell; Anupama Unnikrishnan

ON MODELING PENDING CASES IN COURT EFFICIENCY ANALYSIS

Giannis Karagiannis; Stavros Kourtzidis; Panagiotis Ravanos

FRIDAY JUNE 19th, 2026

Fri | 09:00-10:30 | Terra & Jupiter - Life-time Achievement Award to Erwin Diewert

Erwin Diewert, Professor Emeritus, Vancouver School of Economics, University of British Columbia.

Chair: Valentin Zelenyuk

CAPTURING THE ECONOMIC VALUE OF HOUSEHOLD SOLAR ELECTRICITY IN NATIONAL ACCOUNTS

Paul Schreyer

PRICE INDEXES: BUILDING ON ERWIN DIEWERT'S CONTRIBUTIONS

Robert Hill

INTEGRATING CAPITAL THEORY INTO DEPRECIATION ESTIMATION: A BUILDER'S MODEL APPROACH TO ASSET MEASUREMENT

Chihiro Shimizu

Fri | 11:30-13:00 | Terra - DEA Methods 4

A SPATIAL SCAN STATISTIC FOR SECOND STAGE ANALYSIS OF BRAZILIAN DISTRIBUTOR SYSTEM OPERATORS

Tatielle Menolli Longhini; Marcelo Azevedo Costa; Bruno de Almeida Vilela

ASSESSING THE INDIVIDUAL CONTRIBUTIONS OF INPUTS AND OUTPUTS TO ENVIRONMENTALLY SUSTAINABLE PRODUCTIVITY CHANGE

Paola Ravelojaona

CHECKING THE CONVERGENCE OF BOOTSTRAP DEA AND IMPUTATION-PROPELLED DEA

Ardhana M. Prabhash; Vipin Valiyattoor

VISUALIZING AND ANALYZING TRADE-OFFS IN DATA ENVELOPMENT ANALYSIS USING GRAPH THEORY

Alexander Öttl; Mette Asmild

Fri | 11:30-13:00 | Jupiter – Productivity 3

REVISITING TOTAL FACTOR PRODUCTIVITY IN CHINA: A DUAL-FRONTIER MEASUREMENT OF CATCH-UP AND RELATIVE COMPETITION EFFECTS

Zhiyang Shen; Michael Vardanyan

REDUCING EXTREME TRADE-OFFS IN REGULATORY BENCHMARKING THROUGH FRONTIER REFINEMENT

Sara Kamali; Mohsen Afsharian; Heinz Ahn

A THEORY OF TECHNOLOGY-BASED PRODUCTIVITY INDEX

Sung Ko Li; Long Zhao

FIRM SUBSIDIES AND FACTOR USE

Thomas Triebs; Mingyang Li; Kai Sun

Fri | 11:30-13:00 | Venus 1 - Justice 2

EFFICIENCY ANALYSIS OF FIRST INSTANCE COURTS IN NORTH MACEDONIA: A POLICY PERSPECTIVE

Katerina Shapkova Kocevska

LOWERING THE BAR TO FILL THE BENCH: THE QUALITY-QUANTITY TRADE-OFF IN JUDICIAL LABOR MARKETS

Deborah Kaut; Armela Maxhelaku

DECONSTRUCTING THE CLEARANCE RATE AS A MEASURE OF COURT PERFORMANCE

Pablo Arocena; Daniel Santin

COMPARING COMMERCIAL COURTS IN IBERIAN PENINSULA

Maria Silva; Pablo Arocena; Diogo Dias

Fri | 11:30-13:00 | Mars 1 - Education 2

TO WHAT EXTENT CAN TUITION DISCOUNTING BE APPLIED IN LOW-TUITION REGIMES? A STOCHASTIC COST FRONTIER STUDY OF HIGHER EDUCATION INSTITUTIONS IN TAIWAN

Tsu-Tan Fu; Wei-Hsin Kong; Wen-Jen Tsay

MEASURING SOCIAL BENEFIT-COST EFFICIENCY IN EUROPEAN SPORTS INDUSTRY USING DYNAMIC DEA

Pin-Hsuan Sung; Chin-Yi Fang

CONSTRUCTION OF EUROPEAN EDUCATION POLICY: OUTLINING WAYSTATIONS BASED ON REGIONAL CAPACITY

Dovile Stumbriene; Jose Luis Ruiz; Inmaculada Sirvent

BEYOND PERFORMANCE: PRODUCTIVITY AND EQUITY DYNAMICS ACROSS OECD EDUCATION SYSTEMS

Gabriela Sicilia; Giovanna D'Inverno; Rosa Simancas; Cristina Polo

Fri | 11:30-13:00 | Mars 2 – Sustainability & Eco-efficiency 4

STATISTICAL INFERENCE FOR WORLD GREEN EFFICIENCY AND PRODUCTIVITY DYNAMICS: THEORY AND APPLICATION

Valentin Zelenyuk; Shirong Zhao

ENVIRONMENTAL TOTAL FACTOR PRODUCTIVITY AND THE COST-EFFECTIVENESS OF GHG EMISSION REDUCTION

Yang Liu; Maria Vrachioli; Johannes Sauer

CIRCULARITY FOR ENHANCING AGRICULTURAL PRODUCTIVITY IN AUSTRIA & BAVARIA

Ludwig Müller Flores; Maria Vrachioli; Fabian Frick; Johannes Sauer; Josef Hambrusch; Christoph Tribl; Julian Zeilinger

SUSTAINABLE PRODUCTIVITY & SUSTAINABLE PROFITABILITY

Arne Henningsen; Frederic Ang; Moriah Bostian; Herve Dakpo; Maria Vrachioli

Fri | 14:00-15:30 | Terra - Organized session 4: Efficiency in system design

EFFICIENCY-DRIVEN SOCIO-TECHNICAL SYSTEM DESIGN

Chair: Konstantinos Triantis

This session explores how efficiency analysis can inform the design, evaluation, and governance of complex socio-technical engineered systems. Moving beyond purely technical perspectives, the contributions explicitly integrate human behavior, organizational dynamics, and adaptive decision-making into performance assessment frameworks. Drawing on systems engineering, efficiency analysis, complexity science, and data analytics, the session presents conceptual advances, methodological innovations, and applied case studies (transportation, healthcare, safety-critical operations). The session highlights how efficiency-driven design can support resilient, context-sensitive, and policy-relevant system performance.

EFFICIENCY-DRIVEN DESIGN OF SOCIO-TECHNICAL ENGINEERED SYSTEMS: AN OVERVIEW

Konstantinos Triantis; Joseph Godfrey; Yas Mashayekhy; Saman Mohsenirad; Leon Sobrie; Maria Tomai

UNDERSTANDING COMPLEX TRANSPORTATION SYSTEMS: RAILWAY DELAYS AND POLICY INTERVENTIONS FOR IMPROVED PERFORMANCE

Yas Mashayekhy; Konstantinos Triantis

A PROBLEM TYPE TAXONOMY USING DONABEDIAN'S STRUCTURE-PROCESS-OUTCOME MODEL

Joseph Godfrey; Leon Sobrie; Maria Tomai; Konstantinos Triantis

TRUST-BASED INPUT REGIMES AND CLIMATE RESILIENCE EFFICIENCY: A CROSS-COUNTRY META-FRONTIER DEA STUDY WITH ROBUST SIMULATION-BASED AUGMENTATION

Juan Carlos Franco; Konstantinos Triantis

Fri | 14:00-15:30 | Jupiter - Agriculture 5

AGRICULTURAL SERVICES AND RESOURCE ALLOCATION EFFICIENCY: EVIDENCE FROM CHINA

Ruizhi Pang; Xuejie Bai

EFFICIENCY AND PEER-TARGET ANALYSIS IN EUROPEAN BEEKEEPING: LEARNING FROM EACH OTHER

Ludwig Lauwers; Marie Van Espen; Wim Verbeke

PRODUCTIVITY GROWTH ADJUSTED FOR ANIMAL HEALTH IN SWEDISH DAIRY FARMS

Frederic Ang; Enoch Owusu-Sekyere; Karin Alvasen; Helena Hansson

ARE ENVIRONMENTAL EFFICIENCIES OF SWEDISH AGRICULTURE MORE TRANSIENT OR MORE PERSISTENT? HETEROGENEITY AND DETERMINANTS

Vivian Wei Huang

Fri | 14:00-15:30 | Venus 1 - SFA Methods 3

BAYESIAN ESTIMATION OF PANEL STOCHASTIC FRONTIER MODELS WITH SPATIALLY AND TIME-VARYING INEFFICIENCY

Rouven E. Haschka

INDIRECT INFERENCE IN PANEL STOCHASTIC FRONTIER MODEL WITH ENDOGENOUS SWITCHING AND ENDOGENOUS INPUTS

Hung-pin Lai

SEMI-PARAMETRIC PANEL DATA MODELS WITH INTERACTIVE FIXED EFFECTS

Emma Kate Henry; Daniel Henderson

UNDER-REPORTING IN MACROECONOMIC OUTPUT AND INPUT DATA SERIES: A TWO-TIER SFA

Alecos Papadopoulos

Fri | 14:00-15:30 | Mars 1 - Country Analysis 2

QUALITY PERFORMANCE OF WATER UTILITIES SERVICES IN SUB-SAHARAN AFRICA. A NON-PARAMETRIC ANALYSIS OF DRC

Jeannine Mwaku; Barnabe Walheer

INVESTMENT PERFORMANCE OF INDIAN FINANCIAL ASSETS UNDER MEAN-STANDARD DEVIATION VS. MEAN-SEMIDEVIATION MODEL: APPLICATION OF STOCHASTIC FRONTIER ANALYSIS

Anup Kumar Bhandari

CORPORATE TAX UNDER-REPORTING IN DEVELOPING COUNTRIES: EVIDENCE FROM ETHIOPIA

Fikru Kefyalew Alemayehu; Subal Kumbhakar; Soressa Jarra

MODELLING THE FISCAL-SERVICE-SATISFACTION CHAIN: A PANEL NETWORK DEA STUDY OF SPANISH MUNICIPALITIES

Maria Teresa Balaguer-Coll; Isabel Narbon-Perpina; Diego Prior; Emili Tortosa-Ausina

Fri | 14:00-15:30 | Mars 2 – Sustainability & Eco-efficiency 5

PERFORMANCE EVALUATION OF BUS LINES USING THE BENEFIT-OF-THE-DOUBT APPROACH

Gabriel Eduardo Cursino da Silva; Lucio Silva; Luann Bruno Vidal de Andrade; Thyago Nepomuceno

THE INFLUENCE OF ENVIRONMENTALLY FRIENDLY VEHICLES ON AIR POLLUTION

Maria Jose Perez-Villadoniga; Dario Blanco Fernández; Ana Rodriguez-Alvarez; David Roibas

PRODUCTIVE EFFICIENCY OF METRO DC: 2020-2025—A SPATIAL ANALYSIS APPROACH

Robert Mosheim; Carl Paruska

FROM BLIND FUNDING TO SMART ALLOCATION: OPTIMISING ECO-EFFICIENCY IN URBAN TRANSPORT SERVICES

Victor Gimenez; Gemma Perez López; Pablo Povedano Fernández; Diego Prior; Jose Luis Zafra Gómez

Fri | 16:00-17:10 | Terra - Manufacturing 2

DO RECENT PUBLIC R&D FUNDING INCREASE SPANISH FIRMS' R&D? AN EMPIRICAL EVALUATION USING MACHINE-LEARNING TECHNIQUES

Dario Blanco Fernandez; Desiderio Romero Jordán; Inmaculada C. Alvarez; Luis Orea

BRIDGING THE TECHNOLOGY GAP: ABSORPTION, ADOPTION AND TFP GROWTH OF INDIAN MANUFACTURING FIRMS

Anuvinda Anuvinda; Vipin Valiyattoor

THE ROLE OF SPATIAL DYNAMICS IN LABOR PRODUCTIVITY: A REGIONAL MULTIFACTOR PARTITIONING ANALYSIS OF MEXICO'S MANUFACTURING SECTOR: 1993-2018

Jesus Antonio Lopez Cabrera; Miguel Alejandro Flores Segovia; Robin Sickles

Fri | 16:00-17:10 | Jupiter – Sustainability & Eco-efficiency 6

A CIRCULAR SLACKS-BASED METAFRONTIER PSEUDO-MALMQUIST INDEX FOR GROUP PERFORMANCE COMPARISON: APPLICATION TO GLOBAL PETROLEUM FIRMS

Kwaku Ohene-Asare; Emily Asaa Addison; Eric D. Ofosu-Hene

DO PUBLIC-PRIVATE PARTNERSHIPS IMPROVE ENVIRONMENTAL PRODUCTIVITY? EVIDENCE FROM JAPAN'S SEWAGE TREATMENT SECTOR

Takayoshi Nakaoka

TECHNOLOGY SPILLOVERS FROM FOREIGN DIRECT INVESTMENT ON THE GREEN INNOVATION PERFORMANCE OF LOCAL FIRMS

Iulia Siedschlag; Juan Duran

Fri | 16:00-17:10 | Venus 1 - Justice 3

NOT ALL CASES ARE CREATED EQUAL (OR WHY WEIGHT RESTRICTIONS ARE ESSENTIAL IN COURT EFFICIENCY STUDIES)

Mette Asmild; Alexander Ottl; Jonas Månsson

IT'S A COMPLEX CASE: BENCHMARKING COURTS OF JUSTICE

Jaap Bos; Mette Asmild; Deborah Kaut

Fri | 16:00-17:10 | Mars 1 - Education 3

A BI-OBJECTIVE OPTIMIZATION APPROACH FOR STRATEGIC BENCHMARKING IN INTERVAL SCALE DEA WITH AN APPLICATION TO THE NATIONAL STUDENT SURVEY (NSS) IN THE UK

Akram Dehnokhalaji; Nasim Nasrabadi; Banu Lokman

PERFORMANCE ASSESSMENT OF EUROPEAN EDUCATION SYSTEMS AT THE REGIONAL LEVEL: DECOMPOSING TEMPORAL TRENDS USING A ROBUST CONDITIONAL MALMQUIST INDEX

Fernando Osorio; Ana Camanho; Flavia Barbosa; Giovanna D'Inverno

ECONOMIES OF SCALE & SCOPE IN EUROPEAN HIGHER EDUCATION: THE ROLE OF SUBJECT MIX

Gaetano Francesco Coppeta; Tommaso Agasisti; Luigi Brighi

Fri | 16:00-17:10 | Mars 2 – Gender & Social Efficiency

GENDER EFFECTS ON MICROFINANCE SOCIAL EFFICIENCY: A ROBUST APPROACH INCORPORATING UNDESIRABLE OUTPUTS

Cinzia Daraio; Francois Seck Fall; Leopold Simar; Anne Vanhems

GENDER, ICT ADOPTION AND TECHNICAL EFFICIENCY: A SELECTION-CORRECTED STOCHASTIC FRONTIER ANALYSIS OF INDIA'S UNINCORPORATED MANUFACTURING SECTOR

Mahak Vijay; Rama Pal

INVERTED SBM-VRS BENCHMARKING OF WORKFORCE RELATIONS STABILITY UNDER MODERN SLAVERY RISK PRESSURES

Isotilia Costa Melo; Paulo Nocera Alves Junior; Morteza Alaeddini