

## **Eurkind #GCW2016**

# INNOVATION EMPLOYMENT THE ENVIRONMENT

22-24 June, Valencia

### **SESSION GUIDELINES for Chairs, Presenters and Discussants**

#### BASIC FORMAT OF PARALLEL PAPER SESSIONS

Each session normally includes three papers and lasts about one and a half hours.

Standard schedule:

Paper presentation by the author = 20 minutes
Discussant = 5 minutes
General discussion and author replies = 5 minutes

Computer projectors will be available for PowerPoint presentations.

Please bring your presentation on a USB memory device.

#### **SESSION CHAIRS**

This note is intended to provide basic guidance for managing the sessions for which you are responsible. As session chair, you are expected to introduce the presenter and the discussant, make sure that they time that has been allotted and manage questions from the floor.

Please make sure to be in the room where the session will take place at least 5 minutes before the appointed time. Before the session, introduce yourself to the presenters and make sure that their presentations have been uploaded in the PC. Should technical problems arise, please solicit the advice of technical assistants.

For each presenter/discussant introduce the name and title of the paper. A series of cards will be provided to assist time management: 5 minutes left; 1 minute left; STOP. When issued the STOP card presenters/discussants should conclude their presentation.

During the Q&A session please make sure that comments are delivered concisely so as to allow enough time for others to contribute to the debate, and for the presenters to respond. Also, make sure that the session finishes on time.

Thank you for chairing and contributing to the success of the conference!

#### PAPER PRESENTERS

Each participant will only be allowed to present a maximum of two papers at the conference. We assigned equal and sufficient time to all presenters but for this to be effective we need your collaboration.

Please make sure to be in the appropriate room at least 10 minutes before the session is due to start. All rooms are equipped with a PC and a projector: have your presentation on a USB memory device and load it yourself onto the machine before the start of the session. Should technical problems arise, please solicit advice of technical assistants.

Introduce yourself to the other presenters and the chair and provide the chair with your biographical details for use when introducing you. Carefully plan your presentation to make sure that it is within the time allotted, 20 minutes. Make sure co-authors are acknowledged, and structure your presentation so that there is enough time to highlight your findings and their possible implications.

Session chairs will be very strict in terms of time management. During your presentation you will be showed three cards indicating how you are doing with time: 5 minutes left; 1 minute left; STOP. When issued the STOP card you should conclude your presentation.

Thank you for your cooperation!

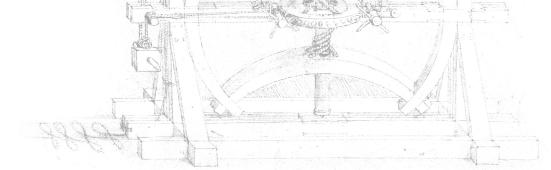
#### DISCUSSANTS

This note is intended to provide basic guidance on the preparation and delivery of your discussion. Discussants are expected to stimulate the debate during a session. Even if the paper you are asked to discuss does not fall in your area of expertise, please do your best to provide useful comments. Be clear, to the point, sharp but constructive, acknowledge significant contributions, and point out room for improvement. Ideally your input will jump start a debate and will offer the author(s) insights for further developing their work. Try to be the discussant that you would like to get feedback from when your own work is being discussed!

Please make sure to be in the appropriate room at least 10 minutes before the session is due to start. Please note that the format of the discussion is up to you: it is not compulsory to have a PowerPoint presentation as long as your comments are organized, clear and concise. Should you opt for the PowerPoint format, please have your presentation on a USB memory device and make sure to load it yourself onto the PC before the start of the session. Should technical problems arise, please solicit advice of technical assistants.

Session chairs will be strict in terms of time management. During the Q&A session please make sure that comments are delivered concisely so as to allow enough time for others to contribute to the debate, and for the presenters to respond. Also, make sure that the session finishes on time.

Thank you for your cooperation!



#### **KEYNOTES**

Jeroen van den Bergh

"The contribution of technological innovation to addressing the climate challenge: systemic effects and policies" Wednesday 22 June - H:16.00 (Salon de Actos, RED CUBE)

The energy transition to a low-carbon economy involves dealing with three related challenges, namely peak oil, rising global energy demand and climate change. The magnitude of the decarbonisation challenge is quantified. Four possible, general solution strategies are critically discussed. Next, the logic of a large-scale transition to renewable energy is examined by comparing the net energy features of different technologies as well as the unique features of environmental (vs. general) innovations. The relative contribution of innovation is discussed, informed by empirical studies. It is examined how policy can control three potential systemic effects, namely carbon leakage, energy rebound and green paradox. Policy should furthermore adequately address R&D, diffusion and lock-in related to energy technologies. The lecture ends with implications for growth and employment. Here issues of environmental tax revision, "a-growth" and productivity trap receive attention. (Chair: Jens Horbach)

#### **Short Bio**

Jeroen van den Bergh is ICREA Research Professor in the Institute of Environmental Science and Technology (ICTA), Universitat Autònoma de Barcelona (UAB) since September 2007. In addition, he is professor of Environmental and Resource Economics in the Faculty of Economics & Business Administration and the Institute for Environmental Studies, VU University Amsterdam (VUA). Previously, he was professor of Environmental Economics (1997-2007) and Professor of 'Nature, Water and Space' (2002-2007) at VUA, Member of the Energy Council of the Netherlands (2003-2007), and deputy director for research of ICTA (2012-2015). He obtained a Master in Econometrics and Operations Research from University of Tilburg (1988) and a PhD in Economics from VUA (1991). He has more than 170 publications in international journals and wrote/edited 16 books. He was awarded three prizes for articles and a book, and two general environmental science prizes, namely the Royal/Shell Prize 2002 for research on "Sustainable Development, Environment and Resources" the IEC Premi (Sant Jordi) de Medi Ambient 2011. He is editor-in-chief of the Elsevier journal "Environmental Innovation and Societal Transitions" and editor of the Edward Elgar book series "Advances in Ecological Economics". More than 20 researchers finished a PhD thesis under his guidance.

His research is on the intersection of economics, environmental science and innovation studies. Past work includes dematerialization and recycling, ecological-economic modelling, construction of aggregate indicators, growth-versus-environment, spatial/international aspects of environmental policy and fisheries economics. Work in recent years involves evolutionary economics and environmental innovation, behavioural-environmental economics, and the economics of climate change.

**Anna Salomons** 

"The Impact of Technological Change on Labor Demand"
Thursday 23 June - H:11.00 (Salon de Actos, BLUE CUBE)

A fast-growing literature shows that technological change is replacing labor in routine tasks, raising concerns that labor is racing against the machine. This paper is the first to estimate the labor demand effects of routine-replacing technological change (RRTC) for Europe as a whole and at the level of 238 European regions. We develop and estimate a task framework of regional labor demand in tradable and non-tradable industries, building on Autor and Dorn (2013) and Goos et al. (2014), and distinguish the main channels through which technological change affects labor demand. These channels include the direct substitution of capital for labor in task production, but also the compensating effects operating through product demand and local demand spillovers. Our results indicate that RRTC has on net led to positive labor demand effects across 27 European countries over 1999-2010, indicating that labor is racing with the machine: however, the size of this effect depends critically on where the gains from the increased productivity of technological capital accrue. (Chair: Frank Neffke)

#### **Short Bio**

Anna Salomons is associate professor of applied econometrics at Utrecht University's School of Economics in the Netherlands, having obtained her PhD from the University of Leuven in Belgium. Anna's research focuses on the labor market impacts of technological change and has been published in the top-ranked scientific journals. She has been awarded research grants from the Strengthening Efficiency and Competitiveness in the European Knowledge Economies (SEEK) program and the Dutch Science Foundation (NWO). Anna is an affiliated researcher at the University of Leuven and a fellow of the Research Centre for Education and the Labor Market (ROA, University of Maastricht) and has held positions as a visiting researcher at the London School of Economics and the Center for European Economic Research (ZEW) in Mannheim. She has provided policy advice to among others the European Commission, the Alliance of Liberals and Democrats for Europe (ALDE) and the Dutch government.

#### Frank Neffke

"How the division of knowledge creates co-worker complementarities"

Thursday 23 June - H:15.30 (Salon de Actos, BLUE CUBE)

Modern societies and their education systems distribute knowledge across their members through myriad specialized educational tracks. However, the skills that individuals acquire in such tracks are all but useless in isolation: only in teams, in which different workers dispose of different skills, do the benefits of specialization come to fruition. Using data on detailed educational tracks for the universe of Swedish workers, we analyze the match of a worker to her co-workers in terms of their educational complementarity and similarity. To do so, we propose measures of complementarity and similarity based on large-scale co-occurrence analysis. Co-worker complementarities evolve over a worker's career in a way that closely tracks the shape of Mincer curves. Moreover, we find causal evidence that suggests that co-worker complementarities give rise to wage premia that are at least as large as the returns to college education. In contrast, having co-workers with skills similar to one's own is associated with significant wage losses. Finally, some well-documented wage premia are almost completely contingent on co-worker complementarities: both the returns to schooling and the urban wage premium only materialize fully in the presence of complementary co-workers. (Chair: Stan Metcalfe)

#### **Short Bio**

Frank Neffke is a Senior Research Fellow at the Harvard Kennedy School. As a member of the Center for International Development's Growth Lab, his research focuses on how economic actors diversify from one productive activity to another. Central in this research is that activities can be more or less similar in terms of the capabilities or skills they require. This similarity is shown to affect diversification processes throughout the economy, ranging from individuals' career paths and corporate diversification strategies, to structural change in regional and national economies. Before joining CID, Frank worked as an assistant professor at the Erasmus School of Economics in Rotterdam, The Netherlands. He holds a Ph. D. in Economic Geography from Utrecht University and Master degrees in Econometrics and Philosophy from the University of Amsterdam.

#### **Stan Metcalfe**

"Economic Theory and Disruptive Technology: The Role of Knowledge and Ignorance in Open Systems" Friday 24 June - H:09.00 (Salon de Actos, BLUE CUBE)

At least since Ricardo economists have argued over the effects of new technology on economic activity, debating the innovation and adaptation mechanisms that come into play whenever the status quo is challenged by new possibilities. Our modern interest in these powerful phenomena has gained renewed salience with the emergence of major technological disjunctions, one in terms of sustainable environmental technology and the other in terms of the technology of artificial intelligence. Both have major implications for employment, the distribution of income and the structure of economic activity more generally. In this lecture I explore these themes in terms of the dynamics of an open economic system at its connection to the generation of new knowledge. Modern capitalism is often portrayed to be a knowledge economy but I shall argue that it may equally be portrayed as an ignorance economy and that capitalism's chief dynamic properties reflect this change of view. (Chair: Horst Hanusch)

#### **Short Bio**

Professor Stan Metcalfe is Emeritus Professor at the University of Manchester and visiting Professor of Economics at the University of Queensland. During his career he has lectured at the Universities of Manchester and Liverpool. He has been actively involved in the development of science and technology policy in the UK, being a member first of ACARD and subsequently ACOST. He was until 1996 a member of the Monopolies and Mergers Commission. His research interests include evolutionary economics and the modelling of evolutionary processes in relation to innovation, competition and economic growth. He is a former President of the International Schumpeter Society and of the Manchester Statistical Society. He is the 2008 President of the British Association for the Advancement of Science (Section F), the Hadyn Williams Fellow at Curtin University of Technology, Perth (September-December 2008), and Fellow Norwegian Academy of Sciences. On 14 July 2008 he gave the inaugural Franco Momigliano lecture on Innovation and Complexity at the University of Turin. Most recently he has been invited by Senator Kim Carr, Australian Minister for Innovation, Industry, Science and Research, to participate as expert adviser in the review of the Australian National Innovation System.

#### PARALLEL SESSIONS

#### 1A. Knowledge, behaviour, innovation

June 22-17:15. Room: Salon Actos (3rd floor). Chair: Maria Savona

- Cristiano Antonelli: "Knowledge properties and economic policy: a new look". Discussant: Carolina Cañibano
- Carolina Cañibano, Jason Potts: "Toward an Evolutionary Theory of Human Capital". Discussant: Horst Hanusch
- Horst Hanusch: "On the Patterns of Behaviour in Digitalized Societies". Discussant: Cristiano Antonelli

#### 1B. Public sector, Policy and Outcomes

June 22-17:15. Room: Sala Descubre (4th floor). Chair: Ana Granero

- Cristina Vilaplana-Prieto: "Effects of public transport access, safety and quality over employment probability". Discussant: Henry Mora
- Nayibe Castro Novoa, Camilo Gómez, Javier Guillot, Tricia Hackett, Henry Mora, Jody Parra, John Vega, Sandra Zárate: "Evaluation of the innovation management by public sector innovation teams: a Colombia study case.". Discussant: Edurne Magro
- Edurne Magro, Mikel Navarro, Jon Mikel Zabala-Iturriagagoitia: "Policy coordination mechanisms in centralized and decentralized countries". Discussant: Cristina Vilaplana-Prieto

#### 1C. Actors, values and competences for sustainability

June 22-17:15. Room: Sala Debate (4th floor). Chair: Richard Woolley

- Zakaria Babutsidze: "Do you hear what I hear? How social echo chambers help overcome the climate change value action gap". Discussant: Floor Alkemade
- Floor Alkemade: "Opportunities for eco-innovation: Identifying actors and underlying knowledge bases in the Netherlands". Discussant: Cristian Matti
- Andreas Huck, Cristian Matti: "Competencies for managing sustainability transitions: an analysis of the exploratory process on setting up standards for professional certification". Discussant: Zakaria Babutsidze

#### 1D. Cooperation, Spin-offs and university

June 22-17:15. Room: Sala Aprende (4th floor). Chair: Pablo D'Este

- Mario Benassi, Matteo Landoni, Francesco Rentocchini: "University Management Practices and Academic Spinoffs". Discussant: Chiara Marzocchi
- Chiara Marzocchi, Mabel Sanchez-Barrioluengo, Fumi Kitagawa: "Unpacking academic entrepreneurship? Academic spin-offs and graduate start-ups as part of the university research-teaching nexus". Discussant: Pablo D'Este
- Ugo Rizzo, Francesco Rentocchini, Laura Ramaciotti: "Which factors lead to the creation of high-growth academic spin-offs? An empirical investigation of the UK.". Discussant: Mario Benassi

#### 1E. Open innovation, cooperation and clustering

June 22-17:15. Room: Sala Escoge (4th floor). Chair: Mabel Sanchez

- Gianluca Capone, Andrea Morrison: "Pre-entry experience, clustering effects and the emergence of the Italian motorcycle industry". Discussant: Thomas Wainwright
- Thomas Wainwright, Franz Huber, Francesco Rentocchini: "Open Innovation: revealing and engagement in Open Data organisations". Discussant: Antonio Santos
- Antonio Santos: "Open Innovation in Clusters ? The Portuguese Case". Discussant: Gianluca Capone

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#### 2A. Exploration, invention, evolution

June 23-09:00. Room: Salon Actos (3rd floor). Chair: Francesco Lissoni

- Florence Blandinieres: "Translational research in oncology: the role of governmental funded research and diversity". Discussant: Ismael Rafols
- Tommaso Ciarli, Ismael Rafols: "Mapping the Evolution of Research and its Relation to Priorities. The Case of Rice Since the '80s". Discussant: Nuria Moratal Ferrando
- Nuria Moratal Ferrando: "Data Bases and Codification in knowledge production. A case study on the Pharmaceutical Industry". Discussant: Florence Blandinieres

#### 2B. Public Procurement and Innovation

June 23-09:00. Room: Sala Debate (4th floor). Chair: Silvia Rocchetta

- Lisa Dale-Clough, Jakob Edler, Nuno Gil: "Innovating under Pluralism: Governing Consensus and Conflict in Public Procurement for Innovation.". Discussant: Dario Guarascio
- Francesco Crespi, Dario Guarascio: "Public procurement and innovation dynamics in OECD countries". Discussant: Elvira Uyarra
- Edurne Magro, Elvira Uyarra, Jon Mikel Zabala-Iturriagagoitia: "Public procurement of innovation. A tool for regional innovation?". Discussant: Mabel Sanchez-Barrioluengo

#### 2C. Clean-tech: emergence, growth and consolidation

June 23-09:00. Room: Sala Aprende (4th floor). Chair: Claudia Ghisetti

- Riccardo Leoncini, Alberto Marzucchi, Sandro Montresor, Francesco Rentocchini, Ugo Rizzo: "Better Late Than Never: A longitudinal quantile regression approach to the interplay of firm growth, green technology and age". Discussant: Devu Li
- Floor Alkemade, Gaston Heimeriks, Deyu Li: "The emergence of clean-tech innovation: relatedness to country's knowledge base". Discussant: Tuukka Makitie
- Mäkitie Tuukka, Allan D. Andersen, Hanson Jens, Håkon E. Normann, Taran M. Thune: "One leg in an oil puddle: structural overlaps of offshore wind power with oil and gas industry in Norway". Discussant: Alberto Marzucchi

#### **2D. Green Skills and Green Jobs**

June 23-09:00. Room: Sala Descubre (4th floor). Chair: Jens Horbach

- Francesco Vona, Giovanni Marin, Davide Consoli: "Measures, Drivers and Effects of Green Employment: Evidence from US Local Labour Markets, 2006-2014". Discussant: Markus Janser
- Markus Janser: "Green tasks: Greening of jobs and the energy turnaround in Germany". Discussant: Elena Paglialunga
- Valeria Costantini, Francesco Crespi, Elena Paglialunga: "The employment impact of energy efficiency policies: evidence from European industries". Discussant: Nicoló Barbieri

#### 2E. Attitudes, Social Capital and Capabilities

June 23-09:00. Room: Sala Escoge (4th floor). Chair: Pietro Moncada-Paternò-Castello

- Roberto Antonietti, Ron Boschma: "Social capital and regional diversification in Italy". Discussant: Richard Woolley
- Richard Woolley, Phillip Toner: "Bridge Building and Bricolage: Technical occupations in R&D". Discussant: Tao Wang
- Tao Wang, Maggie Mei: "Bound by destiny: Urban-rural divide and corporate philanthropy". Discussant: Roberto Antonietti

#### **Technology, Trade and Skills**

June 23-12:15. Room: Sala Descubre (4th floor). Chair: Anna Salomons

- Davide Consoli, Giovanni Marin, Francesco Rentocchini, Francesco Vona: "Routinization and Long-term Employment Dynamics: The Role of within-occupation task changes". Discussant: Tommaso Ciarli
- Tommaso Ciarli, Andre Lorentz, Maria Savona: "Structural Changes and Growth Regimes". Discussant: Carolina Pan
- Carolina Pan, Fernando Yu: "Technological diversification patterns and economic growth". Discussant: Davide Consoli

#### 3B. R&D. dynamics and innovation

June 23-12:15. Room: Sala Debate (4th floor). Chair: Carolina Cañibano

- Lorena D'agostino, Rosina Moreno: "Exploration during turbulent times: an analysis of the effects of R&D cooperation on radical innovation performance during the economic crisis". Discussant: Pietro Moncada-Paternò-Castello
- Pietro Moncada-Paternò-Castello: "Sector dynamics and firms demographics of top R&D investors in the global economy". Discussant: Ugo Rizzo
- Daria Ciriaci, Nicola Grassano, Antonio Vezzani: "Regulation, Red tape and location choices of top R&D investors". Discussant: Lorena D'Agostino

#### **3C.** Policy premises, implementation and effects

June 23-12:15. Room: Sala Escoge (4th loor). Chair: Dario Guarascio

- Michele Meoli, Eleonora Pierucci, Silvio Vismara: "The effects of public policies in fostering university spin-offs". Discussant: Stefano Bianchini
- Stefano Bianchini, Patrick Llerena, Frederique Sachwald: "Knowledge transfer policies: Lessons from early 20 years of French experience". Discussant: Dario Guarascio
- Stefano Bianchini, Roberto Martino: "Institutions matter. R&D policies under different framework conditions". Discussant: Eleonora Pierucci

#### **3D. Firm-level evidence and innovation**

June 23-12:15. Room: Salon Actos (3rd floor). Chair: Simone Sasso

- Claudia Ghisetti: "Demand-pull and environmental innovations: estimating the effects of innovative public procurement". Discussant: Jorge Antonio Rodríguez Moreno
- Jorge Antonio Rodríguez Moreno: "Innovation types in Ecuadorian firms and their effects on firms' performance". Discussant: Antonio Vezzani
- Sandro Montresor, Antonio Vezzani: "Innovating successfully through design: Evidence from European firms". Discussant: Claudia Ghisetti

#### 3E. Regional emergence, specialisation and adaptation

June 23-12:15. Room: Sala Aprende (4th floor). Chair: Joaquín M. Azagra-Caro

- Giancarlo Giudici, Massimiliano Guerini, Cristina Rossi-Lamastra: "What determines the creation of cleantech firms in a geographical area? The role of technological and institutional factors". Discussant: Jacob Ruhæk Holm
- Jacob Rubæk Holm, Christian østergaard: "When regional development is path-independent: The emergence of new economic activities". Discussant: Silvia Rocchetta
- Andrea Mina, Silvia Rocchetta: "Adaptive Resilience and technological variety: empirical evidence from the UK regions". Discussant: Giancarlo Giudici

#### 4A. Regions, employment and mobility

June 23-17:00. Room: Sala Descubre (4th floor). Chair: Elena Paglialunga

- Simone Sasso, Bram Timmermans: "Should I Stay or Should I Go? Graduate Mobility, Education-job Mismatch, and Regional Labour Markets". Discussant: Ipsita Roy
- Ipsita Roy, Davide Consoli: "Employment Polarization in Germany: Role of Technology, Trade and Human Capital". Discussant: Elena Paglialunga
- Mabel Sanchez-Barrioluengo: "The growth of low-skill jobs in Spain". Discussant: Simone Sasso

#### 4B. Competitiveness, Cooperation and Governance

June 23-17:00. Room: Sala Debate (4th floor). Chair: Lorena D'Agostino

- Joaquín M. Azagra-Caro: "Measuring macro-level effects of the global economic recession on university-industry research cooperation". Discussant: Magdalena Gniadzik
- Magdalena Gniadzik, Robert Grzeszczak: "Is the vision of 'Social Europe' still valid? The ongoing challenges of EU economy and governance". Discussant: Pablo Collazzo
- Pablo Collazzo, Muthukumar Perumal: "MINT? Drivers of Competitiveness", Discussant: Joaquín M. Azagra-Caro

#### 4C. Knowledge, organization and eco-innovation

June 23, H: 17:00. Room: Salon Actos (3rd floor). Chair: Nicoló Barbieri

- Jens Horbach: "The impact of eco-innovations on performance in small and medium enterprises". Discussant: Sandro Montresor.
- Alberto Marzucchi, Sandro Montresor: "Forms of knowledge and eco-innovation modes: Evidence from Spanish manufacturing firms", Discussant: Christophe Feder
- Christophe Feder: "Smart Specialization: A Biased Technological Change Approach". Discussant: Jens Horbach

#### 4D. Behaviour, creativity, capabilities for innovation

June 23-17:00. Room: Sala Aprende (4th floor). Chair: Francesco Rentocchini

- Ricardo Chiva Gómez, Emilio Domínguez Escrig, Rafael Lapiedra Alcamí, Francisco Fermín Mallén Broch: "Testing the effects of stewardship leader behavior on innovation success: the mediating role of radicalness.". Discussant: Evita Paraskevopoulou
- Evita Paraskevopoulou: "Balancing on a tight rope: can creativity and control coexist for the sake of innovation?". Discussant: Anne-Lorène Vernay
- Anne-Lorène Vernay: "Narratives in Business modelling". Discussant: Rafael Lapiedra Alcamí

4E. Modelling innovation, cooperation and science
June 23-17:00. Room: Sala Escoge (4th loor). Chair: Zakaria Babutsidze

- Mark Baglev: "Networks in Clusters". Discussant: Elena Mas
- Koen Frenken, Elena M. Tur, Paolo Zeppini: "Percolation, critical fragmentation and scientific transitions". Discussant: Debasmita Basak
- Debasmita Basak: "Innovation, cooperation and welfare". Discussant: Mark Bagley

#### **5A.** Collaboration, Cooperation and Innovation

June 24-10:30. Room: Sala Descubre (4th floor). Chair: Sandro Montresor

- Kevin Broecks, Frank Van Rijnsoever: "Why do firms, universities and knowledge institutes collaborate in multidisciplinary research programs? A mixed methods approach to evaluation.". Discussant: Holger Graf
- Holger Graf, Martin Kalthaus: "International Collaboration Networks in Photovoltaic Research". Discussant: Areti Gkypali
- Despoina Filiou, Areti Gkypali, Kostas Tsekouras: "R&D collaborations: to diversify or not?". Discussant: Kevin Broecks

#### 5B. Energy, resources and sustainability

June 24-10:30. Room: Sala Debate (4th floor). Chair: Ismael Rafols

- Tommaso Ciarli, Maria Savona: "From Quadratic to Exponential Changes: The Relations Between Economic Structure and Sustainability". Discussant: Tiziano Distefano
- Tiziano Distefano, Scott Kelly: "Are we in deep Water? Water scarcity and its limits to economic growth". Discussant: Anne-Lorène Vernay
- Anne-Lorène Vernay: "Business Models for self-sufficiency". Discussant: Maria Savona

#### **5C. Research, Development and Knowledge Transfer**

June 24-10:30. Room: Sala Aprende (4th floor). Chair: Nicola Grassano

- Andrés Barge-Gil, Pablo D'Este, Herrera Liliana: "Company scientists as triggers of firms' R&D transitions". Discussant: Francesco Rentocchini
- Roberto Iorio, Sandrine Labory, Francesco Rentocchini: "The importance of Third Mission for the breadth and depth of knowledge transfer activities: an analysis of Italian academic scientists". Discussant: Dolores Añon
- Dolores Añon: "Regional University system and location of foreign R&D establishments". Discussant: Andrés Barge-Gil

#### **5D. Learning, Adaptation and Innovation**

June 24-10:30. Room: Sala Escoge (4th floor). Chair: Chiara Marzocchi

- Nicolò Barbieri, Marie Carpenter, Grazia Cecere: "The impact of technological persistence on employment growth in the ICT sector". Discussant: Henry Mora
- Nayibe Castro Novoa, Henry Mora, Sandra Zárate: "An approach to sectoral scientific, technological and innovative capabilities in ICT service firms in Colombia.". Discussant: Michele Pezzoni
- Charles Ayoubi, Michele Pezzoni, Fabiana Visentin: "At the origins of learning: Absorbing knowledge flows from within the team". Discussant: Nicoló Barbieri

#### **6A.** Immigration, Knowledge flows and innovation

June 24-12:15. Room: Sala Descubre (4th floor). Chair: Alberto Marzucchi

- Gabriele Pellegrino, Julio Raffo, Gaetan De Rassenfosse: "Immigration and innovation: empirical evidence from the Collapse of the Soviet Union". Discussant: Edoardo Ferrucci
- Ernest Miguelez, Claudia Noumedem Temgoua: "Immigration Externalities, Knowledge Flow and Brain Gain". Discussant: Gabriele Pellegrino
- Edoardo Ferrucci, Francesco Lissoni: "Foreign Inventors in the US and EU15: Homophily, Self-selection, and Productivity". Discussant: Alberto Marzucchi

#### 6B. Search, generation, diffusion of innovation

June 24-12:15. Room: Sala Debate (4th floor). Chair: Michele Pezzoni

- Joaquín M. Azagra-Caro, Koen Frenken, Elena M. Tur: "Sleeping beauties in technology: delayed recognition of breakthrough innovations". Discussant: Martin Kalthaus
- Martin Kalthaus: "Knowledge Recombination and inventor characteristics in renewable energy technologies". Discussant: Antonio Vezzani
- Petros Gkotsis, Antonio Vezzani: "Patterns of technological diffusion: evidence from patent data". Discussant: Elena Mas

#### **6C. Knowledge, Technology and Specialisation**

June 24-12:15. Room: Sala Aprende (4th floor). Chair: Andrés Barge-Gil

- Artur Santoalha: "New Indicators of Smart Specialization: A related diversification approach applied to European Regions". Discussant: Gianluca Orsatti
- Gianluca Orsatti, Michele Pezzoni, Francesco Quatraro: "Technological-knowledge search-dynamics for the generation of green technologies: A patent based analysis". Discussant: Andrés Barge-Gil
- Matteo Tubiana: "Teamwork and the structure of technological knowledge". Discussant: Artur Santoalha

#### **6D. Modelling innovation, Structure and Dynamics**

June 24-12:15. Room: Sala Escoge (4th floor). Chair: Francesco Vona

- Tommaso Ciarli, Francesco Pasimeni: "Adoption and diffusion of shared goods in consumers' coalitions. An agent-based simulation". Discussant: Tiziano Distefano
- Tiziano Distefano, Pietro Guarnieri: "Positively looping towards sustainability. A complex and evolutionary methodology for transitional decision-making and agency.". Discussant: Ariel Wirkierman
- Tommaso Ciarli, Mariana Mazzucato, Ariel Wirkierman: "An evolutionary model of the risk-reward mechanism in the innovation-inequality relationship". Discussant: Francesco Rentocchini











