

# A Great Transformation?

## RENIR Workshop on the impact of automation and AI in regional economies

*Turin*  
*May 27–28, 2019*

Organized by

RENIR, Collegio Carlo Alberto  
<https://renir.carloalberto.org>

DESPINA Big Data Lab,  
Department of Economics and Statistics, University of Turin  
<https://www.despina.unito.it>



Collegio Carlo Alberto

UNIVERSITÀ DEGLI STUDI DI TORINO



Dipartimento di  
Economia e Statistica  
*Cognetti de Martiis*

**May 27, 2019**

At Campus Luigi Einaudi (Lungo Dora Siena 100 A, Torino), Room F1 (main hall, first floor)

9:00 – 9:30 Welcome coffee

9:30– 09:35 Welcome speech (Aldo Geuna and Dan Breznitz)

09:35 – 11:00 Session (Chair: Aldo Geuna)

Alexander M. Danzer, **Carsten Feuerbaum** and Fabian Gaessler “Labor Supply and Automation Innovation”

**Mario Coccia** “Artificial intelligence technology in medicine: A new technological paradigm for global oncology”

**Wim Naudé** “The Race Against the Robots and the Fallacy of the Giant Cheesecake: Immediate and Imagined Impacts of Artificial Intelligence”

11:00 – 11:15 Coffee break

11:15 – 12:45 Session (Chair: Pierpaolo Patrucco)

Roberta Capello, Matteo Laffi and **Camilla Lenzi** “Mapping the genesis and the evolution of the 4.0 technological paradigm in European regions”

**Michael Smitka** “Industry structure, Disruption, and Regional Resilience”

**David Wolfe** and Elena Goracinova “Regional Resilience and the Future of Ontario’s Automotive Sector in the Age of Digital Disruption”

12:45 – 13:45 Lunch at La Piola del Cine (via Cagliari 40, Torino)

13.45 – 14.45 BOOK PRESENTATION

**Francesco Rullani** and Enzo Rullani, *Dentro la Rivoluzione Digitale (Inside the Digital Revolution)*, Giappichelli, 2018

Chair: **Marco Guerzoni**

Discussant: **Cristiano Antonelli** and **Pier Paolo Patrucco**

14:45 – 16:15 Session (Chair: Marco Guerzoni)

Fabio Montobbio, **Jacopo Staccioli**, Maria Enrica Virgillito and Marco Vivarelli “Robots and their knowledge generation: patenting and firm-level performance”

**Massimiliano Nuccio**, Marco Guerzoni, Riccardo Cappelli and Aldo Geuna “Patterns of specialization and robots adoption: A regional perspective in major European countries”

Rita Strohmaier, Marlies Schuetz and **Simone Vannuccini** “On the brink of a fourth industrial revolution? A systemic perspective on technological transformation in the digital age”

16:15 – 16:30 Coffee break

16:30 – 18:00 PANEL: *Regional policy and industrial transformation*

**Dan Breznitz** (Munk School, University of Toronto)

**Andrea Conte** (JRC, European Commission)

**Emilio Paolucci** (Polytechnic University of Turin)

**Vincenzo Zezza** (Direzione Competitività, Regione Piemonte)

Moderator: **Aldo Geuna**

20:00 – 22:00 SOCIAL DINNER at La Badessa (Piazza Carlo Emanuele II 17, Torino)

**May 28, 2019**

At Collegio Carlo Alberto (Piazza Arbarello 8, Torino), Room 2

9:00 – 9:30 Coffee

9:30 – 11:00 Session (Chair: Carlo Bottai)

Fulvio Castellacci, Davide Consoli and **Artur Santoalha** “Technological Diversification in European Regions: The Role of E-skills”

Lucrezia Fanti, Dario Guarascio and **Matteo Tubiana** “Skill Gap, Mismatch, and the Dynamics of Italian Companies’ Productivity”

Songül Tolan, **Annarosa Pesole**, Fernando Martínez-Plumed, Enrique Fernández-Macías, José Hernández-Orallo and Emilia Gómez “Artificial Intelligence and Jobs: From Tasks to Cognitive Abilities”

11:00 – 11:15 Coffee break

11:15 – 12:45 Session (Chair: Dan Breznitz)

**Tod Rutherford** “Industry 4.0, Trade Unions and Regional Resiliency: A Preliminary Investigation”

**Peter Warrian** and Ray Gosine “Industry 4.0, Metallurgy and the Automotive Materials Supply Chain”

**Patrizio Lecca** and **Andrea Conte** “Capital-Skill complementarity and the impact of technical change at regional level: a quantitative general equilibrium analysis”

12:45 – 14:00 Lunch

14:00 – 15:00 Session (Chair: Massimiliano Nuccio)

**Arianna Martinelli**, **Andrea Mina** and Massimo Moggi “The enabling technologies of industry 4.0: Examining the seeds of the fourth Industrial Revolution”

**Carlo Bottai** “On Scaling of Technological Knowledge Production: How Population Size Affects the Knowledge Recombination Capacity of EU Metropolitan Regions”

15:15 – 15:30 Farewell

## Participants

Cristiano Antonelli (University of Turin & Collegio Carlo Alberto)  
Carlo Bottai (University of Turin)  
Dan Breznitz (Munk School, University of Toronto)  
Mario Coccia (CNR & Yale University)  
Andrea Conte (JRC, European Commission)  
Carsten Feuerbaum (KU Eichstätt-Ingolstadt)  
Aldo Geuna (University of Turin & Collegio Carlo Alberto)  
Marco Guerzoni (University of Turin)  
Patrizio Lecca (JRC, European Commission)  
Camilla Lenzi (Politecnico di Milano)  
Arianna Martinelli (Scuola Superiore Sant'Anna)  
Andrea Mina (Scuola Superiore Sant'Anna)  
Wim Naudé (Maastricht University, UNU-MERIT)  
Massimiliano Nuccio (City RED, University of Birmingham)  
Emilio Paolucci (Polytechnic University of Turin)  
Pier Paolo Patrucco (University of Turin)  
Annarosa Pesole (JRC, European Commission)  
Francesco Rullani (LUISS; Rome)  
Tod Rutherford (Maxwell School of Syracuse University)  
Artur Santoalha (TIK Centre, University of Oslo)  
Michael Smitka (Washington and Lee University, Lexington, VA)  
Jacopo Staccioli (Università Cattolica del Sacro Cuore)  
Matteo Tubiana (INAPP)  
Simone Vannuccini (University of Sussex)  
Peter Warrian (Munk School, University of Toronto)  
David Wolfe (Munk School, University of Toronto)  
Vincenzo Zezza (Direzione Competitività, Regione Piemonte)

## Venue

The first day (**May 27**) the Workshop will take place at the **University of Turin (Campus Luigi Einaudi , Lungo Dora Siena 100 A, Torino)** in the **room F1** (main hall, first floor), and you will find directions and signals from the main hall of the campus.

<https://goo.gl/maps/T3h9gmNx4az23GSB7>

The second day (**May 28**) the Workshop will be at the **Collegio Carlo Alberto (Piazza Arbarello 8, Torino)** in the **room 2**.

<https://goo.gl/maps/NX5giiiRw6D3xpYg7>

The **social dinner** will be at **La Badessa (Piazza Carlo Emanuele II 17, Torino)**

<https://goo.gl/maps/gQG6R32oLsTPhiDx9>

## Instructions for Presenters

Each participant has 20 minutes to present the paper. The room will be equipped with a laptop and a standard video-projector. Presenters are pleased to have their presentation ready on a USB memory card.

## **Organizing committee**

**Cristiano Antonelli**

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Dep. of Economic Policy, Catholic University & BRICK, Collegio Carlo Alberto

**Stefano Musso**

Dep. of Historical Studies, University of Turin

**Massimiliano Nuccio**

City REDI, University of Birmingham & Despina – Dep. of Economics and Statistics "Cognetti de Martiis"

**Emilio Paolucci**

DIGEP, Polytechnic University of Turin

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Dep. of Economics and Statistics, University of Turin & BRICK, Collegio Carlo Alberto

**Peter Warrian**

Munk School, University of Toronto

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the University of Turin, Compagnia di San Paolo, and  
the Innovation Policy Lab at the Munk School of Global Affairs and Public Policy  
for the financial support of this workshop.