

## FINAL PROGRAM

### Opening Session

09:20 – 9:30

#### Welcome Address from IEEE-CSS

**Fabrizio Dabbene**, IEEE CSS Italy Chair

09:30 – 9:40

#### Welcome Address from CNR

**Massimo Inguscio**, President, National Research Council of Italy

09:40 – 9:50

#### Opening Remarks

**Guido Saracco**, Rector, Politecnico di Torino

### Invited Talk: the economists' perspective

09:50 – 10:20

#### Modelling contacts and transitions in the SIR epidemics model

**Pietro Garibaldi**<sup>1,2,6</sup>, Espen R. Moen<sup>3,6</sup>, Christopher Pissarides<sup>4,5,6,7</sup>

<sup>1</sup>Collegio Carlo Alberto, <sup>2</sup>Università degli Studi di Torino, <sup>3</sup>Norwegian Business School, <sup>4</sup>London School of Economics,

<sup>5</sup>University of Cyprus, <sup>6</sup>CEPR,

<sup>7</sup>The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel Laureate, 2010

### Morning Session

10:40 – 11:00

#### On fast multi-shot COVID-19 interventions for post lock-down mitigation

Michelangelo Bin<sup>1</sup>, Peter Cheung<sup>1</sup>, Emanuele Crisostomi<sup>2</sup>, Pietro Ferraro<sup>1</sup>, Hugo Lhachemi<sup>3</sup>, Richard Murray-Smith<sup>4</sup>, Connor Myant<sup>1</sup>, **Thomas Parisini**<sup>1,5,7</sup>, Robert Shorten<sup>1</sup>, Sebastian Stein<sup>4</sup>, Lewi Stone<sup>6</sup>

<sup>1</sup>Imperial College London, <sup>2</sup>Università di Pisa, <sup>3</sup>University College Dublin, <sup>4</sup>University of Glasgow, <sup>5</sup>Università di Trieste,

<sup>6</sup>George S. Wise Faculty of Life Sciences, <sup>7</sup>IEEE-CSS President Elect

11:00 – 11:20

#### A modified SIR model for the COVID-19 contagion in Italy

Giuseppe C. Calafiore<sup>1,2</sup>, Carlo Novara<sup>2</sup> and **Corrado Possieri**<sup>3</sup>

<sup>1</sup>IEIT-CNR, <sup>2</sup>Politecnico di Torino, <sup>3</sup>IASI-CNR

11:20 – 11:40

#### Can the COVID-19 epidemic be controlled on the basis of daily test reports?

**Francesco Casella**<sup>1</sup>

<sup>1</sup>Politecnico di Milano

11:40 – 12:00

#### Network model of the COVID-19 epidemic in Italy to design and investigate possible containment and mitigation strategies

Carmel Calabrese<sup>1</sup>, Ricardo Cardona<sup>1</sup>, Marco Coraggio<sup>1</sup>, Fabio Della Rossa<sup>2</sup>, Francesco De Lellis<sup>1</sup>,

Piero De Lellis<sup>1</sup>, **Mario Di Bernardo**<sup>1</sup>, Anna Di Meglio<sup>1</sup>, Agostino Guarino<sup>1</sup>, Davide Liuzza<sup>3</sup>, Francesco

Lo Iudice<sup>1</sup>, Giovanni Russo<sup>4</sup>, Davide Salzano<sup>1</sup>

<sup>1</sup>Università degli Studi di Napoli, <sup>2</sup>Politecnico di Milano, <sup>3</sup>ENEA, <sup>4</sup>Università degli Studi di Salerno

12:00 – 12:20

### **Modelling, tracing day-zero and forecasting the fade out of the COVID-19 outbreak: Experiences from China and Lombardy studies**

**Lucia Russo**<sup>1</sup>, Cleo Anastassopoulou<sup>2</sup>, Athanassios Tsakris<sup>2</sup>, Gennaro Nicola Bifulco<sup>3</sup>, Emilio Fortunato Campana<sup>4</sup>, Gerardo Toraldo<sup>3</sup>, Constantinos Siettos<sup>3</sup>

<sup>1</sup>IST-CNR, <sup>2</sup>University of Athens, <sup>3</sup>Università degli Studi di Napoli, <sup>4</sup>DIITET-CNR

## **Keynote Session**

14:40 – 15:15

### **Inching Back to Normal after COVID-19 Lockdown: Quantification of Interventions**

**Munther A. Dahleh**, Representing IDSS-COVID-19 Collaboration Group (ISOLAT)

## **Afternoon Session**

15:40 – 16:00

### **A SIDARTHE model of COVID-19 epidemic in Italy**

**Giulia Giordano**<sup>1</sup>, Franco Blanchini<sup>2</sup>, Raffaele Bruno<sup>3,4</sup>, Patrizio Colaneri<sup>5,6</sup>, Alessandro Di Filippo<sup>3</sup>, Angela Di Matteo<sup>3</sup>, Marta Colaneri<sup>3</sup>, COVID19 IRCCS San Matteo Pavia Task Force<sup>3</sup>

<sup>1</sup>Università di Trento, <sup>2</sup>Università di Udine, <sup>3</sup>Fondazione IRCCS Policlinico San Matteo Pavia, <sup>4</sup>Università di Pavia, <sup>5</sup>Politecnico di Milano, <sup>6</sup>IEIT-CNR,

16:00 – 16:20

### **A feedback SIR (fSIR) model: advantages and limitations of infection-based social distancing**

**Elisa Franco**<sup>1</sup>

<sup>1</sup>University of California at Los Angeles

16:20 – 16:40

### **A metapopulation activity-driven network model for COVID-19 in Italy**

Francesco Parino<sup>1</sup>, Lorenzo Zino<sup>2</sup>, **Alessandro Rizzo**<sup>1,3</sup>, Maurizio Porfiri<sup>3</sup>

<sup>1</sup>Politecnico di Torino, <sup>2</sup>University of Groningen, <sup>3</sup>New York University

16:40 – 17:00

### **A multicriteria approach for risk assessment of COVID-19 in urban district lockdowns**

Maria Pia Fanti<sup>1</sup>, **Fabio Parisi**<sup>1</sup>, Valentino Sangiorgio<sup>1</sup>

<sup>1</sup>Politecnico di Bari

17:00 – 17:20

### **A new mathematical model of COVID-19 spread: analysis of the impact of intervention actions and evaluation of the asymptomatic infectious subjects**

Paolo Di Giamberardino<sup>1</sup>, **Daniela Iacoviello**<sup>1</sup>, Federico Papa<sup>2</sup>, Carmela Sinisgalli<sup>2</sup>

<sup>1</sup>Università di Roma Sapienza, <sup>2</sup>IASI-CNR