# Measurement at the Crossroads 2022 Measuring and Modeling

#### Università Cattolica del Sacro Cuore Milano, Italy, 29 June – 1 July 2022

Measurement at the Crossroads 2020 - Measuring and modeling is an interdisciplinary conference that explores the philosophy and history of measurement. It aims at consolidating and developing the study of these topics, following the conferences in Bielefeld (2013), Cambridge (2015), and Paris (2018). It will bring together philosophers, historians, sociologists, and metrologists to address questions related to measurement across disciplines ranging from the natural sciences to the life and human sciences.

Due to the COVID-19 pandemic, the conference had to be postponed to the summer of 2022. It will be held at the Catholic University of Milan, Italy, 29 June - 1 July 2022.

*Information about the format:* the conference is planned to be in person. We remain uncertain about the possibility of online sessions.

This is a second call for abstracts. The proposals submitted to the first call and that were already accepted and then confirmed by the proposers **do not need** to be resubmitted here.

Conference website: https://convegni.unicatt.it/mac-home

#### Keynote Speakers

- Anna Alexandrova (King's College, Cambridge, UK)
- <u>Denny Borsboom</u> (Universiteit van Amsterdam, Netherlands)
- <u>Alisa Bokulich</u> (Boston University, USA)

#### Opening event for the Society for the study of measurement

The conference is expected to host the opening event for a future Society for the study of measurement, whose premises were laid in the margins of Mary S. Morgan's presentation "Weights and Measuring for Complex Wholes" given online on September 30<sup>th</sup> 2021.

### Second call for abstracts

Measurement at the Crossroads 2020 is an interdisciplinary conference that explores the philosophy and history of measurement. It aims at consolidating and developing the study of these topics, following the conferences in Bielefeld (2013), Cambridge (2015), and Paris (2018).

The conference intends to promote the reflection on the foundations of measurement across the sciences from philosophical, historical and sociological points of view. In particular, it will aim to gather scholars from different disciplines to study within diverse perspectives the role of modeling in measurement, the use of measurement in modeling, and the way of demarcating the scope of these activities. In fact, measuring and modeling are fundamental activities for understanding both natural and human domains: through measurements we aim at acquiring objective and intersubjective information about the world; through models we are able to understand complex systems and to predict their dynamics. Although crucially different as activities, measuring and modeling are profoundly intertwined. On the one hand, models are essential in order to select what is to be measured, to provide a sound interpretation of measurement results, and to assess their dependability. On the other hand, measurements are indispensable for determining the quality of models and their ability to capture their intended targets. In the last decades, a growing interest on the connections between measuring and modeling has arisen, from a better comprehension of measurement processes and how model simulations can be used to integrate measurement results, to the idea that the distinction between measurements and simulations is to be thought anew.

Important dates
Deadline for submission: 31 January 2022 Notification of acceptance: 15 March 2022

#### Topics

The range of topics of interest includes but is not limited to:

- 1. Models in measurement
  - The role of models in measurement
  - The role of models in justifying measurement results
  - Models, intersubjectivity, objectivity, validation
  - Models of measurement from a historical point of view
- 2. Models of measurement
  - The general structure of the measurement process
  - The structure of measurement in social and human sciences
  - Transduction and calibration in measurement
  - History of the conception of the structure of measurement
- 3. Measurement and simulation
  - Connections between measuring and simulating
  - Can simulation substitute measurement?
- 4. Measurement and Data Science
  - Measurement and data quality
  - Measurement and data analysis
  - Measurement and big data

#### Submission guidelines

We invite submissions for **20** / **30 minute** presentations, with 10 additional minutes for discussion. Please send a 1000-word abstract in PDF prepared for blind review. All abstracts should be submitted electronically using the EasyChair submission page here: <u>https://easychair.org/conferences/?conf=mac2022</u>

## Organization

#### Programme Committee

David Andrich (University of Western Australia, Australia) Francesca Biagioli (Università di Torino, Italy) Mieke Boon (University of Twente, Netherlands) Marcel Boumans (Utrecht University, Netherlands) Olivier Darrigol (CNRS, SPHERE, France) Nadine De Courtenay (University Paris Diderot, France) Alessandro Giordani (Catholic University, Italy) Giora Hon (University of Haifa, Israel) Luca Mari (Cattaneo University, Italy) Andrew Maul (University of California, Santa Barbara, USA) Roman Morawski (Warsaw University of Technology, Poland) Alfred Nordmann (Technical University of Darmstadt, Germany) Wendy Parker (Durham University, UK) Oliver Schlaudt (University of Heidelberg, Germany) Léna Soler (University of Lorraine, France) Eran Tal (McGill University, Canada) Mark Wilson (University of California, Berkeley, USA)

#### Organizing Committee

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