

Wednesday 22nd April 2026 7:15 for 7:45

City House,
Hills Road, Cambridge, CB2 1RY

Real-time nowcasting and forecasting of COVID-19 dynamics in England

Daniela De Angelis
MRC Biostatistics

Abstract: Daniela De Angelis directs a Cambridge team of statisticians working on “Real time monitoring of the SARS-COV2 pandemic”, which has provided the official Public Health England real time estimates and projections of the state of the pandemic in England.

Research on developing the statistical model for the COVID-19 pandemic first began in response to the 2009 swine influenza pandemic, in collaboration with Public Health England (PHE). The aim was to develop models for estimating and predicting the spread of a potential influenza pandemic, using information from multiple data sources available from PHE.

Key outputs of this work were the modelling and statistical methodology, and computer code, to implement a model for the spread of influenza within a population and across geographical areas. Using data from different streams accumulating over the course of the epidemic, the model could be used to provide timely estimation and prediction of key epidemic quantities.

In a number of publications, Daniela and her team have investigated extensions to the model, including different approaches to include regional information and alternative algorithms to reduce the computational time to produce results in a timely manner.

Speaker: Professor Daniela De Angelis MBE is an Italian biostatistician in the area of infectious disease modelling. Her current roles are Professor of Statistical Science for Health at the University of Cambridge in the Department of Primary Care and Public Health and Deputy Director and Programme Leader at the Medical Research Council Biostatistics Unit. She has published research on the development and application of statistical methods to monitor infectious diseases such as SARS COVID-19, influenza, HIV and hepatitis C. Daniela is member of scientific advisory groups such as NICE, WHO, and UNAIDS. She is a member of the SAGE subgroup, SPI-M (Scientific Pandemic Influenza Advisory Committee, subgroup on Modelling), and the Royal Statistical Society Task Force for COVID-19. In 2022, she was awarded an Honorary MBE for her services to Medical Research and Public Health.

Directions: (From Central Cambridge) City House is a ten minute walk from Cambridge Central train station. From the train station go straight down to the end of Station Road, cross the road and turn left going straight ahead passing the entrance to Brooklands Avenue on your right. After further couple of minutes walk City House is located on your right. A map is located in the pdf file at <https://imaging.mrc-cbu.cam.ac.uk/statswiki/csdg/newtalks>. The nearest parking is at the train station. It is also possible to park at Cambridge North station. The front doors will be locked at 7:45. Arrivals after 7:45pm can gain admittance by contacting the secretary on 07761769436.

Supper: Some members eat regularly in Wetherspoons (St Andrew's Street) before each meeting **at 5-45pm**. All welcome !

Subscriptions: of 1 pound are now due for attending the 2025-2026 session.

Secretary: Peter Watson, MRC Cognition and Brain Sciences Unit, 15 Chaucer Road, Cambridge CB2 7EF;
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Slides and .mp3 files of old talks: <http://www.mrc-cbu.cam.ac.uk/people/peter.watson/csdg.html>

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