



ICTP | International Centre for Theoretical Physics
SAIFR | South American Institute for Fundamental Research

Campus of IFT-UNESP - São Paulo, Brasil

October 16-19, 2023

**MINICOURSE ON
 EPIDEMIC MODELING
 FOR PANDEMIC
 PREPAREDNESS AND
 PREVENTION**



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The COVID-19 pandemic catalyzed an expansion in the size, scope, and relevance of epidemic modeling. In many cases, mathematical models became part of public health responses, shaping forecasting and decision making involved with interventions. Yet, integrating epidemic models in practice remains challenging, in part because transmission is shaped by pathogen dynamics and human behavior. This minicourse provides students and early career researchers an opportunity to learn the principles of epidemic model development along with recent advances in analyzing coupled disease-behavior dynamics, methods for model-data integration at scale, and ongoing challenges in utilizing mathematical models for pandemic prevention.

This one week school will include a crash course in epidemic modeling suitable for those from other areas (mathematics, physics, engineering, computing) and for those from biology and public health who want to integrate quantitative modeling into their research. Lectures will be supplemented by hands-on computational sessions to help course participants translate concepts into practice (computational sessions available in both Python and R).

There is no registration fee and limited funds are available for travel and local expenses.

Application deadline: August 27, 2023

**Online application and more information:
www.ictp-saifr.org/meb**



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