

# **Keeping it Real: Calibration and Parametric Inference for Complex Epidemic Models**

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Mathematical models can provide an invaluable insight into the underlying dynamics of complex epidemic systems, even in the presence of uncertainty. However, the extent of their usefulness is determined by the quality of their calibration to empirical data. This talk will provide a brief overview of the calibration approach and the associated inference of unknown parameters. It will also introduce the current state-of-the-art methods, including Approximate Bayesian Computation, Particle Filtering and Bayesian Emulation.