# Scientific Modelling A Primer



## **Roman Frigg** London School of Economics

## Science & Philosophy Colloquia

### room xii, villa mirafiori, via Carlo Fea 2, rome 25 October 2016 – 10:30-12:30

#### open to the public

organisation Emiliano Ippoliti Filosofia – Sapienza



Science & Philosophy Colloquia| Dipartimento di Filosofia | Dottorato di Filosofia

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#### Programme

tuesday 25 october 2016

10:35-10:45	<b>Introduction</b> Emiliano Ippoliti <i>Filosofa – Sapienza</i> ,
10:45-11:45	Scientific Modelling. A Primer
11:45-12:00	Break
12:00-12:30	<b>Debate</b> <b>Chair</b> Fabio Sterpetti <i>Filosofia – Sapienza</i>

#### Abstract

Models are of central importance in many scientific contexts. Many scientists spend a great deal of their time building, testing, comparing and revising models, and much journal space is dedicated to introducing, applying and interpreting these valuable tools. In short, models are essential to the acquisition and organisation of scientific knowledge. But what are models and how do they work? Philosophers are acknowledging the importance of models with increasing attention and are probing the assorted roles that models play in scientific practice. This lecture offers an introduction to scientific modelling and the philosophical issues that attach to it.

**Roman Frigg** is Professor of Philosophy in the Department of Philosophy, Logic and Scientific Method, Director of the Centre for Philosophy of Natural and Social Science (CPNSS), and Co-Director of the Centre for the Analysis of Time Series (CATS) at the London School of Economics and Political Science.

He holds a PhD in Philosophy from the University of London and masters degrees both in theoretical physics and philosophy from the University of Basel, Switzerland. His research interests lie in general philosophy of science and philosophy of physics, and he has published papers on climate change, quantum mechanics, statistical mechanics, randomness, chaos, complexity, probability, scientific realism, computer simulations, modelling, scientific representation, reductionism, confirmation, and the relation between art and science. His current work focuses on predictability and climate change, the foundation of statistical mechanics, and the nature of scientific models and theories.



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