

Conferências de

Robert C. Bishop



12 e 14 de Junho'13

Faculdade de Ciências da Universidade de Lisboa

12 Junho'13 | 11h00 | Auditório da FFCUL (C1, Piso 3)

Complexity and Contextual Emergence

Abstract: Complex phenomena arise in the natural sciences as well as in social systems. Such complexity is rich with metaphysical and epistemological implications but is only recently receiving sustained philosophical analysis. For example, there has been too little sustained analysis of causation or laws in complex systems. Contextual emergence is a framework allowing for more detailed metaphysical and epistemological analysis of complexity while taking the scientific developments seriously. I will describe contextual emergence, focusing particularly on the importance of stability conditions, and illustrate it using the physical example of convection. Then, I will extract some lessons for further philosophical reflection on top-down constraint and causation relevant for metaphysics and philosophy of science debates.

14 Junho'13 | 11h00 | Auditório da FFCUL (C1, Piso 3)

Chaos, Complexity and the Question of Determinism

Abstract: Chaos and complexity are topics of intense interest. Generally, nonlinear models are used to describe and explore actual world phenomena we take to be chaotic or complex. However, these models raise several questions about their relationship to the target systems we seek to model as well as about whether such systems are deterministic or not. In this talk, I will give some basic characterizations of chaos, complexity, nonlinearity and determinism. I will then explore some philosophical questions that nonlinear models raise about the status of determinism in the actual world.



Robert C. Bishop é professor de Física e Filosofia da Ciência no Wheaton College. Especialista nas implicações filosóficas do caos e da complexidade, é editor da Internet Encyclopedia of Philosophy e de entradas da Stanford Encyclopedia of Philosophy. A sua investigação actual centra-se nas questões da emergência, determinismo, filosofia das ciências sociais e filosofia da mente.

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