

# Institut d'Études Avancées - Paris

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## Simplicity as an Epistemological Value in Scientific Practice

The epistemological value of simplicity has long been taken as self-evident by natural scientists, and perhaps especially by physical scientists, but in this workshop we wish to examine the multiple meanings and values that have variously been attached to simplicity in the mathematical, physical and biological sciences – both as currently practiced and as practiced in the past.

### Friday, Jan 8. 2010

9h30 : Welcome: **Evelyn Fox Keller**

9h45: **David Wilson**, History of Science, Iowa State University:  
*"Simplicity in the Copernican Revolution: Galileo, Descartes, and Newton"*

11h30-12h45: **Jean Gayon**, IHPST, Université Panthéon-Sorbonne:  
*"Simplicity in the biological sciences"*

14h30-15h45: **Evelyn Fox Keller**, IEA and MIT:  
*"Simplicity as an ontological value in Physics and Biology"*

16h05-17h20: **Annick Lesne**, CNRS, LPTMC & IHES:  
*"Simple models in physics and biology"*

17h20- 18h20: Round table (commentators): **David Ruelle, Karine Chemla, & Jacques Ricard, Nadine Peyriéras**

### Saturday, Jan 9. 2010

9h30 – 10h45: **David Rabouin**, Director, REHSEIS (SPHERE, CNRS & Université Paris Diderot):  
*"The Difficulty of being simple: Leibniz on simple notions"*

11h15- 12h30 : **Jeremy Avigad**, INRIA – MSR, Orsay, & Carnegie Mellon University:  
*"Simplicity in abstract algebra and number theory"*

14h00-15h15: **Andrew Arana**, Kansas State University:  
*"Simplicity and elementary methods"*

15h45-17h00: **Jean-Jacques Szczeciniarz**, Director Département HPS U. Paris Diderot & REHSEIS (SPHERE, CNRS & U. Paris Diderot):  
*"Investigating once again the Kantian antinomy simple/compound"*

17h00-18h00: Round table (commentators): **Karine Chemla, Sébastien Gandon & Ivahn Smadja**

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