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Quantum Interaction

6th International Symposium, QI 2012
Paris, France, June 27-29, 2012
Revised Selected Papers

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Preface

Quantum interaction (QI) is an emerging field which applies quantum theory (QT) to domains such as economics, organizations and social interaction, psychology, artificial intelligence, human language, cognition, information retrieval, biology, and political science. The application areas addressed typically operate at a macroscopic scale and could not be considered quantum in a quantum mechanical sense, they may share many key properties with quantum systems including: non-commutativity of measurement, indeterminacy, non-separability, contextuality, and harmonic oscillations.

After highly successful previous meetings (QI 2007 at Stanford, QI 2008 at Oxford, QI 2009 in Saarbruecken, QI 2010 in Washington DC, and QI 2011 in Aberdeen), the 6th International Symposium on Quantum Interaction took place during June 27–29, 2012, in Paris, France.

QI 2012 received 32 submissions. All contributions were reviewed by at least two reviewers. In total, 23 papers were accepted for presentation at the conference. Two keynote speakers were featured. Michel Bitbol (Department of Epistemology, École Polytechnique Paris) gave a presentation on “Quantum Theory in the Light of a Relational Conception of Knowledge.” Philippe Grangier (Department of Physics, École Polytechnique Paris) gave a talk on “Quantum Information: From Fundamental Ideas to Experimental Implementations.” The symposium hosted three tutorials: “Conceptual Spaces” given by Peter Bruza, “Quantum Indeterminacy in Social Sciences: From a Theory of Knowledge to a Theory of Decision-Making and Behavior” given by Ariane Lambert-Mogiliansky, and “Quantum Search” given by Dominic Widdows.

These proceedings include the 21 accepted papers that were presented and revised based on the reviewers’ comments and the discussion at the symposium.

We would like to take the opportunity to thank everybody who made this symposium possible: the Steering Committee, the Program Committee members for their reviewing job, the Proceedings and the Publicity Chairs, those responsible for the website design and management, and all the conference participants and presenters. We are grateful for the support given by the Paris School of Economics and the Conservatoire National des Arts et Métiers.

September 2012

Jerome R. Busemeyer
François Dubois
Ariane Lambert-Mogiliansky
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