

OSTROM WORKSHOP COLLOQUIUM SERIES

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“Progress Review after 10 Years of Applying Quantum Probability to Judgment and Decision Making”



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12:00–1:00 PM • Ostrom Workshop, 513 N. Park

What type of probability theory best describes the way humans make judgments under uncertainty and decisions under conflict? Although rational models of cognition and decision have become prominent and have achieved much success, they adhere to the laws of classical probability theory despite the fact that human reasoning does not always conform to these laws. For this reason, we have seen the recent emergence of models based on an alternative probabilistic framework drawn from quantum theory. These quantum models show promise in addressing human cognitive and decision-making phenomena that have proven recalcitrant to modeling by means of classical probability theory. This review compares and contrasts probabilistic models based on Bayesian or classical versus quantum principles, and highlights the advantages and disadvantages of each approach.



[Jerome Busemeyer](#) is Distinguished Professor in Psychological & Brain Sciences, Cognitive Science, and Statistics at Indiana University Bloomington. He was the Manager of the Cognition and Decision Program at the Air Force Office of Scientific Research in 2005–2007. Currently, he is founding and Chief Editor of the APA journal *Decision*. He became a fellow of the American Academy of Arts and Sciences in 2017, and he received the Warren Medal for research from the Society Experimental Psychologists in 2015.

Presentations are open to the public and are live streamed (see our website for URL and papers). You are welcome to bring your lunch. For questions, contact Allison Sturgeon (sturgeon@iu.edu; 812/855–3151).