



**JUNE 20**  
MONDAY

**9:00 AM** Official opening of the School by the principal of UQAM, Robert Proulx, and by the director of the Institute, Daphnée Simard

**9:10 AM** General Introduction to the School by Serge Robert (UQAM) *The Interdisciplinary Science of Reasoning*

**THE EXPERIMENTAL PSYCHOLOGY OF REASONING 1**

**9:20 AM** Introduction and chair by Henry Markovits (UQAM)

**THE MENTAL MODELS APPROACH**

**9:30 AM** Ruth M. J. Byrne (Trinity College Dublin) *Counterfactual Thought: From Logic to Moral Judgment*

**10:30 AM** Break

**10:45 AM** Geoffrey Goodwin (University of Pennsylvania) *How People Judge the Truth and Probability of Conditionals*

**11:45 AM** Henry Markovits (UQAM) *A Dual-strategy Model of Conditional Reasoning*

**BAYESIAN APPROACHES**

**2:15 PM** David Over (Durham University, UK) *Probabilistic Psychology of Reasoning*

**3:15 PM** David A. Lagnado (University College London) *Bayesian Networks in Evidential Reasoning*

**4:15 PM** Break

**4:30 PM** Panel discussion with the lecturers

**7:30 PM** Keynote lecture: *Neuroscience and Reasoning: Is there a Module in the Brain for reasoning?* Vinod Goel (York University)

**JUNE 21**  
TUESDAY

**THE EXPERIMENTAL PSYCHOLOGY OF REASONING 2**

**9:00 AM** Introduction and chair by Henry Markovits (UQAM)

**DUAL OR MULTIPLE PROCESSES OF REASONING**

**9:15 AM** Jonathan Evans (Plymouth University, UK) *From Dual Processes to Two Minds Theory*

**10:15 AM** Break

**10:30 AM** Linden Ball (University of Central Lancashire, UK) *Dual-Reasoning Processes and the Resolution of Uncertainty: the Case of Belief Bias*

**11:30 AM** Valerie Thompson (University of Saskatchewan) *Intuition, Metacognition and Analytic Thinking*

**HEURISTICS, BIASES AND DEVELOPMENT**

**2:00 PM** Valerie Reyna (Cornell University) *A Fuzzy Trace Theory of Risky Decision Making: Why Reasoning is more like Poetry than Logic*

**3:00 PM** Wim de Neys (CNRS and Université de Paris-Descartes) *Heuristic Bias and Conflict Detection: Quo Vadis Dual Process Theory?*

**4:00 PM** Break

**4:15 PM** Panel discussion with the lecturers

**JUNE 22**  
WEDNESDAY

**THE MODELING OF HUMAN REASONING**

**9:00 AM** Introduction and chair by Serge Robert (UQAM)

**9:15 AM**

Jean-François Bonnefon (Toulouse School of Economics) *Reasoning about Preferences*

**10:15 AM** Break

**10:30 AM** Guy Politzer (Institut Jean Nicod, ENS, Paris) *The Modeling of Reasoning: A Chimera?*

**11:30 AM** Ulrich Furbach (Koblenz Universität) *Automated Reasoning for Cognitive Computing*

**2:00 PM**

Keith Stenning (University of Edinburgh) *Reasoning as a Discourse Process: Consequences for Cognition*

**3:00 PM**

Michiel van Lambalgen (University of Amsterdam) *Reasoning as a Discourse Process: Consequences for Logic*

**4:00 PM** Break

**4:15 PM**

Panel discussion with the lecturers

**JUNE 23**  
THURSDAY

**REASONING AND EPISTEMIC MODALITY**

**9:00 AM** Introduction and chair by Elizabeth Allyn Smith (UQAM)

**9:15 AM** Malte Willer (University of Chicago) *Reasoning with Epistemic Modals*

**10:15 AM** Break

**10:30 AM** Oliver Roy (Universität Bayreuth) *Dynamic Models of Interactive Rationality*

**11:30 AM** Yves Bouchard (Université de Sherbrooke) *Reasoning in Epistemic Contexts*

**SOCIAL AND ENVIRONMENTAL DIMENSIONS OF REASONING**

**2:00 PM** Introduction and chair by Serge Robert (UQAM)

**2:15 PM** Paul Thagard (University of Waterloo, Canada) *Why Reason? Inference, Reasoning and Social Communication*

**3:15 PM** Guillaume Beaulac (Concordia University) *Thinking about Cognitive Environments*

**4:15 PM** Break

**4:30 PM** Panel discussion with the lecturers

**JUNE 24**  
FRIDAY

**LINGUISTICS, PRAGMATICS AND REASONING**

**9:00 AM** Introduction and chair by Elizabeth Allyn Smith (UQAM)

**9:15 AM** Craige Roberts (Ohio State University) *Constrained Practical Reasoning in Linguistic Interpretation*

**10:15 AM** Break

**10:30 AM** Jonathan Ginzburg (Université de Paris-Diderot) *Formal Treatment of Meaning in Illocutionary Interaction*

**11:30 AM** Matthew Stone (Rutgers University) *Learning Cognitive Models of Meaning*

**REASONING AND LANGUAGE ACQUISITION**

**2:00 PM** Introduction and chair by Daphnée Simard (UQAM)

**2:15 PM** Kristen Syrett (Rutgers University) *Reasoning in Context in Child Language Acquisition*

**3:15 PM** Manne Bylund (Stockholm University) *Learning to Think in a Second Language*

**4:15 PM** Break

**4:30 PM** Panel discussion with the lecturers

**JUNE 27**  
MONDAY

**COMPUTATIONAL MODELS AND COGNITIVE ARCHITECTURES**

Chair by Pierre Poirier & Othalia Larue, UQAM

**9:00 AM** Introduction by Sangeet Khemlani (Naval Research Laboratory, Washington, D.C.)

**9:15 AM** Sangeet Khemlani (Naval Research Laboratory, Washington, D.C.) *mReasoner: A Computational Model of the Processes of Inference*

**10:15 AM** Break

**10:30 AM** Ron Sun (Rensselaer Polytechnic Institute, Troy, New York) *Reasoning with the CLARION Cognitive Architecture*

**11:30 AM** Terrence C. Stewart (University of Waterloo, Canada) *Reasoning with Biologically Realistic Neural Representations*

**2:00 PM**

Noah D. Goodman (Stanford University) *Bayesian Models of Reasoning and Language Understanding*

**3:00 PM** Jennifer Trueblood (Vanderbilt University) *A Quantum Probability Perspective on Reasoning*

**4:00 PM** Break

**4:15 PM** Panel discussion with the lecturers

**JUNE 28**  
TUESDAY

**REASONING AND RATIONALITY**

**9:00 AM** Introduction and chair by Jean Robillard (Télé-Université, U. du Québec)

**9:15 AM** Jean-Yves Béziau (Universidade Federal Rio de Janeiro) *Can Logic Turn us More Rational?*

**10:15 AM** Break

**10:30 AM** Catarina Dutilh Novaes (University of Groningen) *The Phylogeny and Ontogeny of Deductive Reasoning: A Cultural Story*

**11:30 AM** Marco Ragni (Freiburg Universität) *Neuro-cognitive Models of Relational Reasoning*

**2:00 PM** Serge Robert (UQAM) *Between Logic and Cognition: A Computational Model of Reasoning*

**REASONING, DECISION AND PROBLEM SOLVING**

**3:00 PM** Introduction and chair by Roger Villemaire (UQAM)

**3:15 PM** Joseph Halpern (Cornell University) *Decision Theory with Resource-bounded Agents*

**4:15 PM** Break

**4:30 PM** Balakrishnan Chandrasekaran (Ohio State University) *Cognitive Architectures and Diagrammatic Reasoning*

**5:30 PM** Panel discussion with the lecturers

**JUNE 29**  
WEDNESDAY

**REASONING, ONTOLOGIES AND PLANNING**

**9:00 AM** Introduction and chair by Roger Villemaire (UQAM)

**9:15 AM** Sheila McIlraith (University of Toronto) *Reasoning to Act: From Logic to Automated Planning*

**10:15 AM** Break

**10:30 AM** Ian Horrocks (Oxford University) *Logic  $\wedge$  Reasoning  $\wedge$  Scalability  $\vDash \perp$ ?*

**11:30 AM** Pascal Hitzler (Wright State University, Dayton, Ohio) *Ontology Modeling*

**COGNITION AND MATHEMATICAL REASONING**

**2:00 PM** Introduction and chair by Mathieu Marion (UQAM)

**2:15 PM** Helen de Cruz (University of Amsterdam) *Can Numerical Cognition Tell us Anything about the Metaphysics of Numbers?*

**3:15 PM** Paula Quinon (Lund University, Sweden) *Philosophical Problems Related to the Approximate Number System*

**4:15 PM** Break

**4:30 PM** Panel discussion with the lecturers

**5:00 PM** Cocktail and Poster session: organized by Janie Brisson (UQAM)

**JUNE 30**  
THURSDAY

**REASONING AND EDUCATION**

**9:00 AM** Introduction and chair by Julien Mercier (UQAM)

**9:15 AM** Susanne Lajoie (McGill University) *Learning Environments Across Disciplines*

**10:15 AM** Break

**10:30 AM** Roger Azevedo (North Carolina State University) *Interdisciplinary Fusion: Reasoning about Cognitive, Metacognitive, and Affective Processes used during Complex Learning with Advanced Learning Technologies*

**11:30 AM** Jeroen J. G. van Merriënboer (Maastricht University) *Cognitive Basis for the Design of Instruction*

**2:00 PM** Tassos A. Mikropoulos (University of Ioannina, Greece) *Educational Virtual Environments: Turning Affordances into Pedagogical Features through Reasoning*

**3:00 PM** Ton De Jong (University of Twente, Netherlands) *Reasoning and Learning: Technological Solutions for Potential Pitfalls in Inquiry Learning*

**4:00 PM** Break

**4:15 PM** Panel discussion with the lecturers

**JULY 1<sup>ST</sup>**  
FRIDAY

**REASONING AND INTELLIGENT TUTORING SYSTEMS**

**9:00 AM** Introduction and chair by Roger Nkambou (UQAM)

**9:15 AM** Janet L. Kolodner (Georgia Tech. & The Concord Consortium MA) *Cognitive Prosthetics for Fostering Learning: A View from the Learning Sciences*

**10:15 AM** Break

**10:30 AM** Beverly Woolf (University of Massachusetts, Amherst) *Detecting and Responding to Student Emotion within an Online Tutor*

**11:30 AM** Monique Grandbastien (Université de Lorraine) *Reasoning at the Core of ITS: Stabilities and Evolutions*

**2:00 PM** Cristina Conati (University of British Columbia) *Representation and Reasoning for Intelligent Tutoring beyond Problem Solving*

**3:00 PM** Roger Nkambou & Serge Robert (UQAM) *Muse Logic: An Intelligent Tutoring System for the Teaching of Logic*

**4:00 PM** Break

**4:15 PM** Panel discussion with the lecturers

**4:45 PM** General conclusion: Serge Robert (UQAM) *On the Future of the Interdisciplinary Science of Reasoning*