

Mind & Machine Agenda

UC Santa Barbara
February 19 – 21, 2020

February 19, 2020

Location: Marine Science Building (MSB) Auditorium, Room 1302

- 5:00pm **Keynote: Can analogy unlock AI's barrier of meaning?**
Melanie Mitchell, Davis Professor of Complexity, Santa Fe Institute
- 6:30pm **Welcome Reception**
MSB Patio

February 20, 2020

Location: Marine Science Building (MSB) Auditorium, Room 1302

- 8:30am **Welcome and Opening Remarks**
Pierre Wiltzius, Executive Dean of the College of Letters and Science, Susan & Bruce Worster Dean of Science, Professor of Physics, UC Santa Barbara
- 8:45am **Understanding human intelligence through human limitations**
Tom Griffiths, Psychology and Computer Science, Princeton University
- 9:15am **Improving group decision-making by artificial intelligence**
Lirong Xia, Computer Science, Rensselaer Polytechnic Institute
- 9:45am **Models for Human-AI Decision Making**
Ambuj Singh, Computer Science, UC Santa Barbara
- 10:15am **Break**
- 10:30am **Understanding mind and machine intelligence through reasoning**
William Wang, Computer Science, UC Santa Barbara
- 11:00am **Humans do not think left-to-right, and machines shouldn't either**
Kyunghyun Cho, Computer Science, New York University and Facebook AI Research
- 11:30am **Contextual computation in brains and artificial recurrent neural networks**
David Sussillo, Google Brain
- 12:00pm **Lunch break**
- 1:00pm **Core knowledge and natural language: two keys to children's fast and flexible learning**
Elizabeth Spelke, Psychology, Harvard University
- 1:30pm **The human child as an algorithmic inference engine**
Steven Piantadosi, Psychology, UC Berkeley
- 2:00pm **Human-inspired visual object recognition: how babies teach us about building learning machines**
Chen Yu, Psychological and Brain Sciences, Indiana University
- 2:30pm **Breakout Sessions**
Topic 1 – MSB 2318
Topic 2 – MSB 3322
Topic 3 – MSB 4318

3:30pm **Progress report from breakout sessions & discussion**

5:00pm **Keynote: Bots & tots**
Hal Varian, Chief Economist, Google

6:30pm **Dinner**

February 21, 2020

Location: Marine Science Building (MSB) Auditorium, Room 1302

8:15am **Language acquisition by learning from multimedia curriculum**
Heng Ji, Computer Science, University of Illinois at Urbana-Champaign

8:45am **Illuminating social-media intelligence with cognitive science**
Huan Liu, Computer Science and Engineering, Arizona State University

9:15am **Towards interpretable neural natural language processing models**
Byron Wallace, Khoury College of Computer Sciences, Northeastern University

9:45am **Break**

10:00am **Data matters: social, cultural, and environmental grounding in human cognition**
Amy Perfors, School of Psychological Sciences, University of Melbourne

10:30am **Multimodal AI: understanding human behaviors**
Louis-Philippe Morency, Computer Science, Carnegie Mellon University

11:00am **The rise of artificially intelligent agents**
Anton Korinek, Economics and Darden School of Business, University of Virginia

11:30am **Machine learning individual heterogeneity**
Max Farrell, Booth School of Business, University of Chicago

12:00pm **Lunch break**

1:00pm **Perceptual worlds of humans and machines**
Miguel P. Eckstein, Psychological and Brain Sciences & ECE, UC Santa Barbara

1:30pm **Adversarial machine learning as cognitive hacking**
Yevgeniy Vorobeychik, Computer Science & Engineering, Washington University in St. Louis

2:00pm **Break**

2:15pm **Breakout Sessions**
Topic 1 – MSB 2318
Topic 2 – MSB 3322
Topic 3 – MSB 4318

3:15pm **Progress report from breakout sessions & discussion**

4:15pm **Closing remarks and adjourn**

6:00pm **Dinner**