

Brains, Minds and Machines 2020

All times are US East Coast (NY)

	12-1pm	1-1:15pm	1:15-2:15pm	2:15-2:30pm	2:30-3:30pm
08/10/2020 Monday	<u>Tommy Poggio: Introduction to CBMM Gabriel Kreiman Boris Katz Others: Introduction to the summer course</u>	BREAK	<u>Jim DiCarlo: Visual recognition</u>	BREAK	<u>Tutorial. Ethan Meyers: Using population decoding to understand neural content and coding</u>
08/11/2020 Tuesday	<u>Christof Koch: Relating the structure of the brain to its function by tracking a net-wave of spikes up the visual hierarchy</u>	BREAK	<u>Aleksander Madry</u>	BREAK	<u>Gabriel Kreiman: Recurrent computations to the rescue</u>
08/12/2020 Wednesday	<u>Tomaso Poggio: A theory of deep learning: explaining the approximation, optimization and generalization puzzles</u>	BREAK	<u>Tutorial: Andrei Barbu, Colin Conwell, David Mayo: From zero to machine vision to</u>	BREAK	<u>Antonio Torralba: Computer Vision</u>
08/13/2020 Thursday	<u>Pietro Perona</u>	BREAK	<u>Boris Katz: AI / Language 2</u>	BREAK	<u>Andrei Barbu: Vision + Language</u>
08/14/2020 Friday	<u>Josh Tenenbaum: Computational models of cognition</u>	BREAK	<u>Constantinos Daskalakis</u>	BREAK	<u>Nancy Kanwisher: functional specificity of the human brain</u>

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08/17/2020	Monday	<u>Marge Livingstone: Functional Modules: what good are they and how do we get them?</u>	BREAK	<u>Winrich Freiwald: Faces and social interactions</u>	BREAK	<i>Tutorial: TBD</i>
08/18/2020	Tuesday	<u>Haim Sompolinsky</u>	BREAK	<u>Shimon Ullman: Visual Routines</u>	BREAK	<u>Christos Papadimitriou</u>
08/19/2020	Wednesday	<u>Stefanie Tellex</u>	BREAK	<u>Leslie Kaelbling</u>	BREAK	<i>Tutorial: Mengmi Zhang: Advances in Machine Learning: Adversarial Attacks, Generative Adversarial Network and Deep Q Reinforcement Learning</i>
08/20/2020	Thursday	<u>Matt Wilson: Hippocampal mechanisms of memory and cognition</u>	BREAK	<u>CBMM Alumni Day: Bill Lotter, Hanlin Tang, Vittal Premachandran, Andrea Tacchetti, Georgios Evangelopoulos, Yibiao Zhao, Gemma Roig, Leyla Isik</u>	BREAK	<u>Lorenzo Rosasco: Machine Learning</u>
08/21/2020	Friday	<u>Josh McDermott</u>	BREAK	<i>Tutorial: Arturo Deza: Perceptual Invariance in Humans and Machines</i>	BREAK	<u>Philip Nelson</u>

3:30-3:45pm	3:45-4-45pm
BREAK	<u>Panel Discussion: Hilbert questions in AI [Kreiman, Poggio, Tellex]</u>
BREAK	Virtual poster session
BREAK	<u>Panel Discussion: What is the relationship between biological brains and AI algorithms? [Kanwisher, Serre, Tenenbaum]</u>
BREAK	Virtual poster session
BREAK	<u>Panel Discussion: Is there anything special about human intelligence? (vs. non-human animals, vs. machines) [Saxe, Schulz, Wilson, Roy, Murthy]</u>

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BREAK	<u>Panel Discussion: AI and Ethics [Kreiman, Muller, Max Tegmark, Tenenbaum]</u>
BREAK	Virtual poster session
BREAK	<u>Panel Discussion: The path towards general AI [Gershman, Oliva]</u>
BREAK	Virtual poster session
BREAK	Concluding remarks and virtual social