

Brains, Minds and Machines Summer Course 2023						Italics = invited		Underlined = confirmed							
				Morning				Afternoon							
MBL Rooms Reserved				9:15 - 10:30	10:30 - 10:45	10:45 - 12:00	12:00 - 1:30	1:30 - 2:45	2:45 - 3:00	3:00 - 4:15	4:30 - 6:00	6:00 - 8:00	8:00 - 9:00	9pm on	LEGEND
	Aug-4	Friday	Student/staff move in									Dinner			Lecture
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-5	Saturday	MBL Orientation [45 minutes]	BREAK	<u>Tommy Poggio + Gabriel Kreiman: Introduction to BMM and the summer course.</u>	LUNCH	TA introductions and contact info	BREAK	Student introductions	Student introductions	Welcome reception	Project introductions	Project introductions		Seminar Talk: Lillie Auditorium
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-6	Sunday	Tutorial: Math and Programming (Andrei Barbu, Colin Conwell)	BREAK	<u>Emery Brown: Deciphering the Dynamics of the Unconscious Brain Under General Anesthesia</u>	LUNCH	Tutorial: Intro to Statistical Learning Theory (Akshay Rangamani)	BREAK	Tutorial: Signal Processing (Akshay Rangamani, Mengmi Zhang)	Tutorial: Introduction to Neuroscience (Hector Penagos)	Dinner	Project introductions	Project introductions		Seminar Talk
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-7	Monday	<u>Gabriel Kreiman: The brain's operating system</u>	BREAK	<u>Gabriel Kreiman: The brain's operating system</u>	LUNCH	Tutorial: Computational models of primate vision (Kohitij Kar, Lynn K. A. Sorensen)	BREAK	Tutorial: Intro to Deep learning (Andrei Barbu)	Tutorial: Deep learning hands on 1 (Colin Conwell)	Dinner	Project discussion	Project discussion		Panel Discussion
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-8	Tuesday	<u>Jim DiCarlo: Visual recognition in primates</u>	BREAK	<u>Jim DiCarlo: Visual recognition in primates</u>	LUNCH	Tutorial: Computer Vision Overview (Mengmi Zhang)	BREAK	Tutorial: Neuroscience data analysis (Hector Penagos, Kohitij Kar)	Tutorial: Reinforcement Learning (Lynn K. A. Sorensen, Lucia Schiatti, Spandan Madan)	Dinner	Project discussion	Project discussion		Tutorial (Loeb 108)
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-9	Wednesday	Tutorial: Statistics and Data Analysis (Colin Conwell)	BREAK	Tutorial: Psychophysics (Kohitij Kar)	LUNCH	Tutorial: Computational models of visual attention (Lucia Schiatti, Mengmi Zhang)	BREAK	Tutorial: Computational models of language and audition (Greta Tuckute)	Tutorial: Deep learning hands on 2 (Colin Conwell)	Dinner	Jeff Lichtman: Connectomics At The Nano- and Petascale	Reception @ Lower Swope Terrace		Project (Loeb 108)
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-10	Thursday	Tutorial: Out-of-distribution Generalization (Spandan Madan)	BREAK	Tutorial: Continual Learning (Mengmi Zhang)	LUNCH	Tutorial: Generative models - part 1 (Guy Gaziv)	BREAK	<u>Marge Livingstone: What art can tell us about the brain. [Zoom]</u>	Tutorial: Generative models - part 2 (Guy Gaziv)	Dinner	Project work time	Project work time		Social (location TBD)
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-11	Friday	<u>Tomaso Poggio: A theory of deep learning: explaining the approximation, optimization and generalization puzzles.</u>	BREAK	<u>Akshay Rangamani</u>	LUNCH	<u>Tomer Galanti</u>	BREAK	<u>Boris Hanin</u>	<u>Surya Ganguli</u>	Dinner	<u>Douglas Eck: An overview of Generative AI: music, video and image creation</u>	Reception @ Lower Swope Terrace		Activity
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-12	Saturday	<u>Matt Wilson: Hippocampal mechanisms of memory and cognition</u>	BREAK	<u>Matt Wilson: Hippocampal mechanisms of memory and cognition</u>	LUNCH	Ethics discussion	BREAK	<u>Ed Boyden: Towards the Simulation of Entire Brains</u>	Project work time	Dinner	Project work time	Project work time		Zoom Talk
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-13	Sunday	<u>Brian Cheung</u>	BREAK	<u>Santosh Vempala</u>	LUNCH	<u>Dmitry Krotov: TBD</u>	BREAK	Project work time	<u>Stefanie Tellex: Robotics</u>	Dinner	Project work time	Project work time		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-14	Monday	<u>Andrei Barbu and Boris Katz: Language</u>	BREAK	<u>Andrei Barbu and Boris Katz: Language</u>	LUNCH	<u>Winrich Freiwald: Faces and social interactions</u>	BREAK	<u>Saskia DeVries: Neural data observatories</u>	Project work time	Dinner	Project work time	Project work time		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-15	Tuesday	Project work time	BREAK	Project work time	LUNCH	<u>Haim Sompolinsky: Computational Neuroscience. (Speck auditorium)</u>	BREAK	<u>Thomas Serre: What are the computations underlying primate versus machine vision? (Speck auditorium)</u>	Discussions on magic, opportunities, challenges, and failures of LLMs (Loeb)	Dinner	NOTE: 7PM: Massey lecture: Sebastian Seung [Joint MCN/BMM]	MBL to host reception in Upper Swope Terrace/ Meigs Room		

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Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-16 Wednesday	Martha's Vineyard Trip							Return from Martha's Vineyard	Dinner	Project work time	Watch Bioluminescence (Stony beach)	
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-17 Thursday	Project work time	BREAK	Project work time	LUNCH	<i>Elle Pavlick TBD</i>	BREAK	Project work time	Project work time	Dinner	Project work time	Project work time	
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-18 Friday	<i>Nancy Kanwisher: functional specificity of the human brain</i>	BREAK	<i>Nancy Kanwisher: functional specificity of the human brain</i>	LUNCH	Project work time	BREAK	Project work time	Project work time	Dinner	Movie Night (Speck Auditorium)	Movie Night (Speck Auditorium)	
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-19 Saturday	Project work time	BREAK	Project work time	LUNCH	Project work time	BREAK	Project work time	Project work time	Dinner		Project work time	
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-20 Sunday	Team Challenge - Boat building (tent outside Loeb, Spandan, Coco and Ko in charge)	BREAK	Team Challenge - Boat building (tent outside Loeb)	LUNCH (venue: tent outside Loeb)	Team Challenge - Boat competition (Stony beach)	BREAK	Team Challenge - Boat competition (Stony beach)	Project work time	Dinner	Project work time	Project work time	
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-21 Monday	Alumni Day: Adam Yaari, Kohitj Kar	BREAK	Alumni Day: Anna Leshinskaya, Yen-Ling Kuo	LUNCH Swope Terra	Alumni Day: Carlos Ponce, Bill Lotter	BREAK	Alumni Day: Hanlin Tang [zoom], followed by Q&A panel with all alumin	Project work time	Dinner	Reception @ Upper Swope Terrace		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-22 Tuesday	<i>Josh Tenenbaum: TBD</i>	BREAK	<i>Josh Tenenbaum: TBD</i>	LUNCH	Project work time	BREAK	Project work time	Project work time	Dinner	Project work time	Project work time	
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-23 Wednesday	Student Presentations	BREAK	Student Presentations	LUNCH	Gamma boat	BREAK	Student Presentations	Student Presentations	Dinner	Project work time	Project work time	
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-24 Thursday	Student Presentations	BREAK	Student Presentations	LUNCH	Student Presentations	BREAK	Student Presentations	Student Presentations	Closing Reception 6-9pm Swope Terrace			
	Aug-25 Friday	Student/Staff Move out		Bike pickup 11am									