

Brains, Minds and Machines Summer Course 2025													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-3	Sunday	Student/staff move in								Dinner			Lecture		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-4	Monday	MBL Orientation (5 minutes), Tommy Poggio + Gabriel Kreiman: Introduction to BMM and the summer course	BREAK	TA introductions and contact info	LUNCH	Student introductions	BREAK	Student introductions	Student introductions	Welcome reception 6p Swope Lower Terrace	Welcome reception 6pm - 9 Swope Lower Terrace	Welcome reception 6pm - 9pm Swope Lower Terrace	Seminar Talk: Lillie Auditorium		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-5	Tuesday	Tutorial: Math, programming, and statistical learning (Yehonatan, Morgan)	BREAK	Tutorial: Signal Processing (Taylor)	LUNCH	Tutorial: Introduction to Neuroscience (Hector)	BREAK	Tutorial: Intro to Deep learning (Morgan)	Project introductions	Dinner	MCN/BMM Joint Lecture. Eero Simoncelli	MCN/BMM Joint Lecture. Eero Simoncelli	Seminar Talk		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-6	Wednesday	Jim DiCarlo: Visual recognition in primates	BREAK	Jim DiCarlo: Visual recognition in primates	LUNCH	Tutorial: Deep learning hands on (Brian, Vighnesh)	BREAK	Tutorial: Statistics and Data Analysis (Taylor)	Tutorial: Reinforcement Learning (Morgan, Brian)	Dinner	Project introductions	Project introductions	Panel Discussion		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-7	Thursday	Gabriel Kreiman: The brain's operating system	BREAK	Gabriel Kreiman: The brain's operating system	LUNCH	Tutorial: Intro to Program Synthesis with LLMs (Colin)	BREAK	Tutorial: Intro to Language Models and Multimodal models (Vighnesh, Anitej)	Tutorial: Computational models of visual attention (Mengmi, Lucia)	Dinner	Jeff Lichtman: Connectomics At The Nano- and Petascale	Reception @ Swope Upper Terrace	Tutorial (Loeb 108)		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-8	Friday	Tutorial: Theory of Deep Learning (Yehonatan)	BREAK	Tutorial: Physiological Closed-Loop Control (Taylor)	LUNCH	Tutorial: Deep Generative Models - Session 1 (Guy)	BREAK	Tutorial: Deep Generative Models - Session 2 (Guy)	Tutorial: Deep Generative Models - Session 3 (Guy)	Dinner	Project discussion	Project work time	Project (Loeb 108)		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-9	Saturday	Theory Workshop Tomaso Poggio: Welcome + the computable math of learning	BREAK	TBA Speaker: Prof. Surya Ganguli. Emergent Entropic Forces and Universal Representations in Representation Learning Speaker: Dr. Liu Ziyin	LUNCH	Risk and cross validation in ridge regression with correlated samples Speaker: Dr. Jacob Zavatone	BREAK	TBA Speaker: Prof. Tomer Galanti	Project work time	Dinner	Project work time	Reception @ Swope Upper Terrace	Social (location TBD)		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-10	Sunday	Theory Workshop TBA Speaker: Prof. Santosh Vempala	BREAK	TBA Speaker: Dr. Eran Malach	LUNCH	Understanding Representational Alignment in Vision and Beyond Speaker: Prof. Philip Isola	BREAK	Panel Discussion: ML and neuroscience: common principles of intelligence Moderator: Prof. Tomaso Poggio Panelist: MIT: Dr. Brian Cheung, MIT: Dr. Daniel Mitropolsky, MIT: Prof. Akshay Rangamani, NJIT: Prof. Mengjia Xu, NJIT: Dr. Jacob Zavatone, Harvard, U.	Project work time	Dinner	Project work time	Project work time	Activity		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-11	Monday	Matt Wilson: Hippocampal mechanisms of memory and cognition	BREAK	Matt Wilson: Hippocampal mechanisms of memory and cognition	LUNCH	Ethics discussion	BREAK	Project work time	Emery Brown: Deciphering the Dynamics of the Unconscious Brain Under General Anesthesia [zoom]	Dinner	Project work time	Project work time	Zoom Talk		
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-12	Tuesday	Marge Livingstone (online): What art can tell us about the brain	BREAK	Project work time	LUNCH	Project work time	BREAK	Project work time	Project work time	Dinner	Christof Koch (online): The Biology of Consciousness and its Implications for Machine Consciousness?	Project work time			

Brains, Minds and Machines Summer Course 2025													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										
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-13 Wednesday	<u>Embodied AI Workshop: Led by Leslie Kaelbling and Vikash Mansinghka</u>	BREAK	<u>Embodied AI Workshop: Led by Leslie Kaelbling and Vikash Mansinghka</u>	LUNCH	<u>Embodied AI Workshop: Led by Leslie Kaelbling and Vikash Mansinghka</u>	BREAK	<u>Embodied AI Workshop: Led by Leslie Kaelbling and Vikash Mansinghka</u>	Project work time	Dinner	Project work time	Project work time													
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-14 Thursday	Project work time	BREAK	<u>Ila Fiete: Computational models of the medial temporal lobe</u>	LUNCH	<u>Haim Sompolinsky: Computational Neuroscience</u>	BREAK	<u>Ueli Rutishauser: Neural mechanisms of cognitive flexibility and learning - insights from invasive human recordings</u>	<u>Winrich Freiwald: Faces and social interactions</u>	Dinner	Project work time	Project work time													
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-15 Friday	Project work time	BREAK	<u>Jascha Sohl-Dickstein: Advice for a (young) investigator in the first and last days of the Anthropocene.</u>	LUNCH	<u>Thomas Serre: What are the computations underlying primate versus machine vision?</u>	BREAK	Project work time	Project work time	Dinner	<u>Philip Nelson and Michael Brenner: applied machine learning for science</u>	Watch Bioluminescence (Stony beach)													
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-16 Saturday	Project work time	BREAK	Project work time	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-17 Sunday	Project work time	BREAK	Project work time	LUNCH	<u>Josh Tenenbaum: TBD</u>	BREAK	<u>Josh Tenenbaum: TBD</u>	<u>Sam Gershman: TBD</u>	Dinner	Movie Night (Speck Auditorium)	Movie Night (Speck Auditorium)													
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-18 Monday	Martha's Vineyard Trip							Return from Martha's Vineyard	Dinner	Project work time	Project work time													
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-19 Tuesday	Team Challenge - Boat building (tent outside Loeb, Ko, Taylor, and Morgan are 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-20 Wednesday	<u>Alumni Day: Leyla Isik, Will Xiao, Spandan Madan, Halin Tang [Zoom]</u>	BREAK	<u>Alumni Day: Kohitij Kar, Arjun Bansal [Zoom]</u>	LUNCH Swope Terra	<u>Alumni Day: Carlos Ponce, Bill Lotter</u>	BREAK	<u>Alumni Day: Colin Conwell, SueYeon Chung, followed by Q&A panel with all alumni</u>	Project work time	Dinner	Alumin Day Reception	Project work time													
Lecture: Lillie (9AM-5:30PM) Main Lab: Loeb 306 Kitchen: Loeb 302	Aug-21 Thursday	<u>Ellie Pavlick: LLMs and cognitive models</u>	BREAK	<u>Josh McDermott: auditory perception</u>	LUNCH	<u>Greta Tuckute: Language in the Brain and Large Language Models</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-22 Friday	Student Presentations	BREAK	Student Presentations	LUNCH	Student Presentations	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-23 Saturday	Student Presentations	BREAK	Student Presentations	LUNCH	Student Presentations	BREAK	Student Presentations	Student Presentations	Closing Reception 6-9pm Swope Upper Terrace															
	Aug-24 Sunday	Student/Staff Move out		Bike pickup 11am																					