Cold Spring Harbor Laboratory
MEETINGS & COURSES PROGRAM

Computational Neuroscience: Vision
July 7 – 20, 2022
Banbury Conference Center

INSTRUCTORS:

Emily Cooper	University of California, Berkeley, Berkeley CA
Jonathan Pillow	Princeton University, Princeton NJ
John Serences	University of California, San Diego, La Jolla CA

ASSISTANTS:

Daniel Birman	University of Washington, Seattle WA
Lea Duncker	Stanford University, Stanford CA

PARTICIPANTS:

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Shun Kobayashi	University of Texas at Austin, Austin TX
Konstantin-Klemens Lurz	University of Tübingen, Tübingen, Germany
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Stephanie Reeves	University of California Berkeley, Oakland CA
Ryan Ressmeyer	University of Washington, Seattle WA
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Geyu Weng	University of Utah, Salt Lake City UT

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Thursday, July 07, 2022		
	Introductions	
	What Vision (and this course) is All About	*Tony Movshon*
	Natural Image Statistics	Eero Simoncelli

Friday, July 08, 2022		
	Retina I	Felice Dunn
	Retina II	EJ Chichilnisky

Saturday, July 09, 2022		
	Statistical Encoding Models for Early Vision	*Jonathan Pillow*
	Color and Related Concepts	*Greg Horwitz*
	Python Tutorial	*John Serences*

Sunday, July 10, 2022		
	Population Coding, Manifolds & Dynamics	*Tatiana Engel*
	Natural Vision and Continuous Psychophysics	*Kate Bonnen*

Monday, July 11, 2022		
	Rodent Models of Vision & Attention	*Lindsey Glickfeld*
	Half Day	

Tuesday, July 12, 2022		
	Multisensory Coding	*Jenny Groh*
	Adaptation & Neural Coding	*Adrienne Fairhall*

Wednesday, July 13, 2022		
	Functional Imaging, Attention, Working Memory	*John Serences*
	Binocular Vision	*Jenny Read.*

Thursday, July 14, 2022		
	Deep Learning	*SueYeon Chung*
	Object Recognition	*Anitha Pasupathy*

Friday, July 15, 2022		
	Day Off	

Saturday, July 16, 2022		
	Eye Movements	Emily Cooper
	Ideal Observer Models and Natural Task Statistics	*Johannes Burge*
	Virtual Reality	*Bas Rokers*

Sunday, July 17, 2022		
	Physiology of Attention	*Stefan Treue*
	Attention and Population Coding	*Marlene Cohen*

Monday, July 18, 2022		
	Neural Mechanisms of Decision-Making	*Roozbeh Kiani*
		Geoff Boynton
	Reading/Divided Attention	
	Vision Trivia Night	*Emily*

Tuesday, July 19, 2022		
	Parietal Cortex and Decision Making	*Josh Gold*
	Break for Finishing Projects	
	Study Time	
	Banquet	

Wednesday, July 20, 2022		
	Project Presentations	
	Wrap-up Discussions	