

Title: Neural population coding

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Recent technical advances in systems neuroscience have facilitated large-scale recordings from the nervous system. This seminar series explores the new opportunities that they offer for understanding neural computation. By reading and discussing experimental and theoretical papers, students will learn about several aspects of population codes, including: (i) encoding and decoding of information, (ii) the effects of network structure on population responses, (iii) high-dimensional representations and complex computations supported by them, and (iv) characterization of response dynamics. A guiding focus will be on the interplay between theory and experiment.