

MaLGA COLLOQUIA

Tuesday 9th May, 16:00

Room 322 @ DIBRIS, Via Dodecaneso 35

Cancer Screening: A Parable of Prediction



Abstract

The central promise of machine learning in medicine is improving predictions in healthcare settings. But this begs the question of the importance of prediction in medicine. This talk will examine the value of prediction in healthcare through the history of cancer screening. I will describe how researchers persuaded themselves that early detection would cure cancer, how the evidence generated for this belief was flawed, and how the early detection paradigm remains controversial 50 years after the first randomized screening trial. I will highlight lessons for machine learning regarding the quality of labels in medical detection problems, the dynamic distribution shifts arising in healthcare populations, and the broader role of predictions guiding medical interventions.

Speaker

Benjamin Recht

University of California, Berkeley

Benjamin Recht is a Professor in the Department of Electrical Engineering and Computer Sciences at the University of California, Berkeley. His research has focused on the application of mathematical optimization and statistics to problems in data analysis and machine learning. He is currently studying histories, methods, and theories of scientific validity and experimental design.

