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Olmsted Hall 420

April 2nd 2019

3:45-4:45pm

*Reception in Olmsted 1331
at 3:15 P.M.*



“STATISTICAL NOTIONS OF FAIRNESS IN MACHINE LEARNING”

FOR MORE INFORMATION ABOUT THIS SEMINAR, VISIT STATISTICS.UCR.EDU/COLLOQUIA.HTML

Abstract

As automated decision systems permeate our world, the problem of unintentional discrimination by such systems has become more serious. We identify conditional parity (CP) as a general notion of fairness in machine learning. We show that several recently proposed notions of non-discrimination, including a few counterfactual notions, are instances of CP. Further, we show that CP is amenable to statistical analysis by studying randomization as a generic recipe for achieving CP. Finally, study the incompatibility of CP and another prevalent notion of fairness, calibration, and propose one approach to resolve this paradox.