

Achieving fairness with a simple ridge penalty

A seminar by Francesca Panero

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Room Benvenuti and live Zoom
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After a general introduction on the topic of fair machine learning, I will present a general framework for estimating regression models subject to a user-defined level of fairness. We enforce fairness as a model selection step in which we choose the value of a ridge penalty to control the effect of sensitive attributes. Our proposal accommodates multiple sensitive attributes (continuous or discrete), is mathematically simple, with a solution that is partly in closed form and produces estimates of the regression coefficients that are intuitive to interpret as a function of the level of fairness. Furthermore, it is easily extended to generalised linear models, kernelised regression models and other penalties, and it can accommodate multiple definitions of fairness.



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