



## ELLIS talk

# Algorithmic recourse: theory and practice

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**Host: Marco Mondelli**

In this talk I will introduce the concept of algorithmic recourse, which aims to help individuals affected by an unfavorable algorithmic decision to recover from it. First, I will show that while the concept of algorithmic recourse is strongly related to counterfactual explanations, existing methods for the later do not directly provide practical solutions for algorithmic recourse, as they do not account for the causal mechanisms covering the world. Then, I will show theoretical results that prove the need of complete causal knowledge to guarantee recourse and show how algorithmic recourse can be useful to provide novel fairness definitions that shift the focus from the algorithm to the data distribution. Such novel definition of fairness allows us to distinguish between situations where unfairness can be better addressed by societal intervention, as opposed to changes on the classifiers. Finally, I will show practical solutions for (fairness in) algorithmic recourse, in realistic scenarios where the causal knowledge is only limited.

**Wednesday, September 22, 2021 04:00pm - 06:00pm**

IST Austria Campus Zoom Link: <https://istaustria.zoom.us/j/98049271409?>



**S3pUZ2NvWFJxclJMZmlxQIJzUT09 Meeting ID: 980 4927 1409 Passcode:**

This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage: <https://ist.ac.at/en/campus/how-to-get-here>. The Shuttle bus is marked IST Shuttle (#142) and has the Institute Logo printed on the side.