ELLIS talk

Causality and Autoencoders in the Light of Drug Repurposing for COVID-19

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Massive data collection holds the promise of a better understanding of complex phenomena and ultimately, of better decisions. An exciting opportunity in this regard stems from the growing availability of perturbation / intervention data (for example in genomics, advertisement, education, etc.). In order to obtain mechanistic insights from such data, a major challenge is the development of a framework that integrates observational and interventional data and allows causal transportability, i.e., predicting the effect of yet unseen interventions or transporting the effect of interventions observed in one context to another. I will propose an autoencoder framework for this problem. In particular, I will characterize the implicit bias of overparameterized autoencoders and show how this links to causal transportability and can be applied for drug repurposing in the current COVID-19 crisis.

Friday, June 24, 2022 01:00pm - 02:00pm

Heinzel Seminar Room / Office Bldg West (I21.EG.101)

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

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