RE Artificial Intelligence





## GENDER UNBALANCED Al Seminars

Sala Eventi Tecnopolo (Building 52) Engeneering Department 'Enzo Ferrari' Via Vivarelli 10, 41125 Modena



Friday, December 2nd, 2:15 p.m.

Laura Leal-Taixé (NVIDIA, Technical University of Munich)

From Handcrafted to End-to-End Learning, and Back: a Journey for Multi-Object Tracking

## ABSTRACT:

The challenging task of multi-object tracking (MOT) requires simultaneous reasoning about track initialization, identity, and spatiotemporal trajectories. This problem has been traditionally addressed with the tracking-by-detection paradigm, but recent research has focused on more recent end-to-end learning paradigms such as tracking-by-regression or tracking-by-attention. In this talk I will discuss all the paradigms shifts only to circle back right where we started, tracking-by-detection. Can this paradigm be state-of-the-art?

Prof. Dr. Laura Leal-Taixé is a Senior Research Manager at NVIDIA and also an Adjunct Professor at the Technical University of Munich (TUM), leading the Dynamic Vision and Learning group. From 2018 until 2022, she was a tenure-track professor at TUM. Before that, she spent two years as a postdoctoral researcher at ETH Zurich, Switzerland, and a year as a senior postdoctoral researcher in the Computer Vision Group at the Technical University in Munich. She obtained her PhD from the Leibniz University of Hannover in Germany, spending a year as a visiting scholar at the University of Michigan, Ann Arbor, USA. She pursued B.Sc. and M.Sc. in Telecommunications Engineering at the Technical University of Catalonia (UPC) in her native city of Barcelona. She is a recipient of the Sofja Kovalevskaja Award of 1.65 million euros in 2017, the Google Faculty Award in 2021, and the ERC Starting Grant in 2022. Here research interests lie in video understanding, e.g., multi-object tracking or video object segmentation, and visual localization.

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