

SEMINAR ANNOUNCEMENT

Monday May 26th, 2025

at 03:30 pm Room "Sala Seminari" - Abacus Building (U14)

The Geometry of Learning for Learning Geometry

Speaker Riccardo Marin

Computer Vision Group at the Technical University of Munich (TUM)

Abstract

Generative AI has increasingly extended to 3D data, offering unprecedented opportunities for the synthesis and manipulation of shapes. While these advancements—driven by large-scale datasets and substantial computational power—appear to reinforce the "bitter lesson" that scale is often the key driver of progress, geometric insight remains indispensable. This is especially true when considering 4D data, where shapes are no longer static forms but dynamic entities defined by their interactions over time. Taking into account geometric structure and inductive biases not only improves performance but also opens up new avenues for applications and research.

Short Bio

Riccardo Marin is a post-doctoral researcher in the Computer Vision Group at the Technical University of Munich (TUM), supervised by Prof. Daniel Cremers. Previously, he held postdoctoral positions at the University of Tübingen in the Real-Virtual Humans group led by Prof. Gerard Pons-Moll (supported by both a Humboldt and a Marie Skłodowska-Curie Post-Doctoral Fellowship) and at Sapienza University of Rome in the GLADIA group led by Prof. Emanuele Rodolà. He completed his Ph.D. in Computer Science at the University of Verona under the supervision of Prof. Umberto Castellani, earning the Best PhD Thesis award from EG-Italy. He received his M.Sc. in Computer Science and Engineering from the University of Verona in 2017. His research interests include Spectral Shape Analysis, Shape Matching, Geometric Deep Learning, and Virtual Humans. His work has been published in top-tier venues such as NeurIPS, IJCV, CVPR, ICCV, ECCV, and CGF, and has earned several prestigious awards, including Best Student Paper at 3DV 2020, a Top Cited CGF Paper (2020–21), and Best Paper at the NeurReps Workshop.

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