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Wednesday 09 July 2025

# 6th Youth in High-Dimensions: Recent Progress in Machine Learning, High-Dimensional Statistics and Inference & How creative is Generative AI? Perspectives from Science and Philosophy | (smr 4084)

## Wednesday 09 July 2025

### Contributed talks - Kastler Lecture Hall (AGH) (11:00-14:00)

*Chair: Jean Barbier (ICTP)*

| time | title | presenter |
|---|---|---|
| 11:00 | Local minima of the empirical risk in high-dimensions: general theorems and convex examples | BASIL SAEED |
| 11:15 | Spectral Estimators for Multi-Index Models: Precise Asymptotics and Optimal Weak Recovery | FILIP KOVACEVIC |
| 11:30 | Training Dynamics of In-Context Learning in Linear Attention | YEDI ZHANG |
| 11:45 | What's in a caption? Finding semantics with the information imbalance | ANDREA MASCARETTI |
| 12:00 | Dissecting the Interplay of Attention Paths in a Statistical Mechanics Theory of Transformers | LORENZO TIBERI |
| 12:30 | Lunch | |

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