

# Complexity of Tensor PCA and of its optimization dynamics

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I will report on recent progress on the complexity of the landscape for the spiked tensor problem, and on its topological phase transition. I will then show how this impacts the properties of the dynamical exploration of this landscape.

*This is based on recent joint work with S. Mei (Stanford), A. Montanari (Stanford), M. Nica (Toronto), with V. Ros (Paris), G. Biroli (Paris), C. Camarotta (London), and with A. Jagannath (Harvard) and R. Ghessairi (Courant).*