

# Jena NA Summer School 2025

## Tensors and numerical multilinear algebra

Some references for further reading (highly incomplete)

### Overview articles

- Bachmayr, M. (2023). “Low-rank tensor methods for partial differential equations”. In: *Acta Numer.* 32, pp. 1–121.
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### Low-rank matrix optimization (lecture 1)

- Baldi, P. and K. Hornik (1989). “Neural networks and principal component analysis: Learning from examples without local minima”. In: *Neural Networks* 2.1, pp. 53–58.
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- Zhang, R. Y., S. Sojoudi, and J. Lavaei (2019). “Sharp Restricted Isometry Bounds for the Non-existence of Spurious Local Minima in Nonconvex Matrix Recovery”. In: *Journal of Machine Learning Research* 20.114, pp. 1–34.

### Tensors and basic approximation algorithms (lectures 2 & 3)

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#### Tree tensor networks and TT format (lectures 4 & 5)

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