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Learning under constraints: inference, selection and validation with maximum entropy models

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List of publications

This dissertation is based on the following papers:

- Chapter 2 is based on
  F. Giuffrida, T. Squartini, P. Grünwald, and D. Garlaschelli. Description length of canonical and microcanonical Models. *Phys. Rev. Research 7, 043057* (2025).
- Chapter 3 is based on
  F.Giuffrida, D. Garlaschelli and P. Grünwald. Testing maximum entropy models with e-values. *Phys. Rev. E 113, 054306* (2026).
- Chapter 4 is based on
  Y. Wang, S. Arnold, F. Giuffrida, P. Grünwald, and T. Dickhaus. E-values for Contingency Tables. In preparation.
- Chapter 5 is based on
  F. Giuffrida, E. Agrimi, M. Marzi, A. Gallo, T. Squartini and T. Gili. Signatures of higher-order coordination in the human brain. *In preparation.*

The following paper was completed during the PhD time but is not included in this dissertation:

- M. Marzi, F. Giuffrida, D. Garlaschelli and T. Squartini. Reproducing the first and second moment of empirical degree distributions. *Phys. Rev. Research 8, 013141* (2026).