

1 Signature moments to characterise the law

Link: <https://arxiv.org/pdf/1810.10971.pdf>

Desc: Section 5.5 discusses applying a nonlinear transformation before applying the signature, this is the first place that I am aware of that this has been mentioned.

2 Character-level Chinese Writer Identification and Co

Link: <https://arxiv.org/abs/1505.04922>

Desc: Signatures are used as input for a deep NN. See also <https://arxiv.org/pdf/1308.0371.pdf>, <https://arxiv.org/abs/1707.03993> and <https://arxiv.org/abs/1610.02616> for this

3 A Primer on the Signature Method in Machine Learning

Link: <https://arxiv.org/abs/1603.03788>

Desc: Section 1.2 has a nice/easy to understand description for the signature, section 2.2 contains some stuff on using the signature as features in ARMA models, section 2.4 contains further references on where signatures have been used in ML

4 Rotation invariants of two dimensional curves based on iterated integrals

Link: <https://arxiv.org/pdf/1305.6883.pdf>

Desc: Might be worth mentioning as it highlights how some elements in the signature has certain properties

5 Kernels for sequentially ordered data

Link: <https://arxiv.org/abs/1601.08169>

Desc: Section 3.3 discusses using the signature as features and what the benefits are.

6 Learning from the past, predicting the statistics for the future

Link: <https://arxiv.org/pdf/1309.0260.pdf>

Desc: Section 3 discusses the "expected signature model", linear regression with the signature as features. Section 4 discusses how best to embed a time series as a path and how one can in general do better than linear interpolation