

Séminaire de Probabilités et Statistique

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ZOOM

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Modeling spatio temporal data : the contribution of the signature method

Encoding dependencies between different component of a signal or different signals in a meaningful way is an important problem because of its ubiquity in many areas of science and technology as finance, medicine, environment or climatology. There is however few approaches to encode these dependencies grouping more than two time series and providing associated data mining technics.

This suggests a move towards multilinear features including time evolution in its definition, and it is precisely within this framework that the so-called Signature Method has been introduced After a brief presentation of the method, we shall emphasize the main characteristics of the approach in data analysis : low computational cost, interpretability I shall present some preliminary works on synthetic data and textual data