

Multivariate models with space varying memory

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In the talk we shall discuss long memory phenomenon of multidimensional time series. We consider an operator fractional Brownian motion with values in a finite or infinite dimensional Hilbert space defined via operator-valued Hurst exponent. We prove that this process is a limiting one for polygonal lines constructed from partial sums of time series having space varying long memory. The talk is based on the paper [1].

References

- [1] Račkauskas, A., Ch. Suquet (2011). Operator fractional Brownian motion as limit of polygonal line processes in Hilbert space. *Stochastics and Dynamics* **11**(1), 1–22.