UNIVERSITY OF PASSAU

Faculty of Business Administration and Economics

A cordial invitation to the opening talk of the
Brown Bag Seminar
Recent Developments in Data Science:

Testing for Multiple Structural Breaks in Multivariate Long Memory Time Series

by
Prof. Dr. rer.nat. Philipp Sibbertsen

Date:	28.06.2021 (Monday) at 11:00
Location:	Zoom
Link and further information:	Course 39740 Seminar: Doctoral Seminar "Recent Developments in Data Science" in Stud.IP

https://www.wiwi.uni-passau.de/forschung/brown-bag-seminar-rdds/

Abstract:

This paper considers estimation and testing of multiple breaks that occur at unknown dates in multivariate long-memory time series. We propose a likelihood ratio based approach for estimating breaks in the mean and the covariance of a system of long-memory time series. The limiting distribution of these estimates as well as consistency of the estimators is derived. A testing procedure to determine the unknown number of break points is given based on iterative testing on the regression residuals. A Monte Carlo exercise shows the finite sample performance of our method. An empirical application to inflation series illustrates the usefulness of our procedures.

Speaker:

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since 2005
Professor of Statistics
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