

Research Group "Multivariate Time Series Analysis"

Group Leader: Björn Schelter, PhD

Nowadays, data are recorded with increasing spatial as well as temporal resolution. Apt techniques to analyze this data are necessary. In the group "Multivariate Time Series Analysis" we develop and apply such techniques. Ranging from linear to nonlinear, from univariate via bivariate to multivariate, from parametric to nonparametric approaches, time series analysis allows us not only to gain deeper insights into the normal functioning of the brain but also to understand processes and mechanisms that underly certain diseases.

Different recording entities such as functional magnetic resonance imaging (fMRI), functional near infrared spectroscopy (fNIRS) or electroencephalography (EEG) require tailored analysis techniques due to their different spatial and temporal resolution. Especially the simultaneous measurements from different entities call for novel approaches, which we develop and apply.

The research group "Multivariate Time Series Analysis" is affiliated to the Department of Neurology and the Freiburg Center for Data Analysis and Modeling (FDM). Further information can be found on the following

[sites](#)