Aim and Scope

The statistical modeling and analysis of abrupt changes has received great attention recently due to its importance in many applications, such as membrane biophysics, genetic engineering, financial data analysis and telecommunications, to mention a few. Current challenges range from sophisticated modeling, quantification of statistical uncertainty of estimates, to fast large scale algorithms for identification of change points and other characteristics of discontinuous data structures.

Therefore, this workshops aims to bring together researchers from different communities concerned with time dynamic change point analysis who reflect all aspects required for a successful data analysis.

Talks will cover applications, computational issues, statistical modeling and theory.

Location:

The workshop will be held at the
Tagungszentrum an der Sternwarte
(Conference Center at the Observatory)
University Göttingen

Tagungszentrum an der Sternwarte
Geismar Landstr. 11
37083 Göttingen

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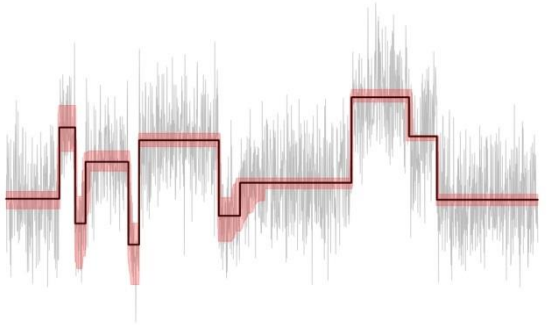
TIME DYNAMIC CHANGE POINT MODELS AND ITS APPLICATIONS

Georg-August-University Göttingen, Germany

October 15th – 16th 2014

Scientific Program



Wednesday, October 15th

08:30 Registration

09:30 Opening,

Vice President Prof. Dr. Lossau

Axel Munk

09:45 D. Siegmund, Stanford University - *Detection and estimation of change-points*

10:25 V. Seshan, Memorial Sloan-Kettering Cancer Center - *Change-point detection in cancer genomics: Theory and applications of circular binary segmentation*

11:05 Coffee Break

11:20 H. R. Künsch, Eidgenössische Technische Hochschule Zürich - *Bayesian nonparametric hidden Markov models*

12:00 C.-D. Fuh, National Central University, Taipei - *Quickest change detection in hidden Markov models*

12:40 Lunch+ Poster Session

14:00 P. Neuvial, Laboratoire Statistique et Génome, Paris - *Performance evaluation of DNA copy number segmentation methods*

14:40 C. Homes, Oxford University - *Exact inference for approximate probilistic change point models for problems arising in genomics*

15:20 Coffee Break

15:50 I. Tecuapetla, Georg-August-Universität Göttingen - *Autocovariance estimation in nonparametric regression with m-dependent errors: A difference-based approach*

16:30 C. Kirch, Karlsruher Institut für Technologie - *Detection of changes in multivariate autoregressive time series with application to EEG data*

18:30 Meeting at Conference Center
19:00 Conference Dinner
Ratsbrauhaus
Markt 3
34346 Hann. Münden

Thursday, October 16th

09:00 S. Kou, Harvard Univertity - *Analyzing change point data from single-molecule experiments via hierarchical models*

09:40 I. Siekmann, University of Melbourne - *Why so moody? - How ion channels get their complex personalities*

10:20 T. Aspelmeier, Georg-August-Universität Göttingen - *Statistical methods for superresolution microscopy with time dynamic polarization modulation*

11:00 Coffee Break

11:20 G. Rigaill, Insitut National de la Recherche Agronomique, Versaille - *Optimal partitioning and functional pruning for multiple change-points detection*

12:00 R. Killick, Lancaster University - *Online change-point detection: A new philosophy*

12:40 Lunch+ Poster Session

14:00 O. Cappé, Laboratoire Traitement et Comm. de l'Inf., Paris - *Rank-based test statistics for detecting anomalies in network traffic data*

14:40 D. Matteson, Cornell University - *A nonparametric approach for multiple change -point analysis of multivariate data*

15:20 Coffee Break

15:50 A. Schwartzman, North Carolina State University - *A multiple testing approach to peak and change-point detection*

16:30 R. Douc, Télécom SudParis - *Asymptotic properties of quasi maximum likelihood estimators in observation-driven time series models*

17:10 Closing, Axel Munk, Georg-August-Universität Göttigen