

Stanford

David Siegmund

John D. and Sigrid Banks Professor, Emeritus
Statistics

Bio

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Statistics
- Member, Bio-X

Teaching

COURSES

2023-24

- Sequential Analysis: STATS 223, STATS 323 (Aut)

2022-23

- Consulting Workshop: STATS 390 (Win)
- Literature of Statistics: STATS 319 (Win)
- Theory of Probability III: MATH 230C, STATS 310C (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Will Hartog

Publications

PUBLICATIONS

- **SEGMENTATION AND ESTIMATION OF CHANGE-POINT MODELS: FALSE POSITIVE CONTROL AND CONFIDENCE REGIONS** *ANNALS OF STATISTICS*
Fang, X., Li, J., Siegmund, D.
2020; 48 (3): 1615–47
- **A genome-wide approach for detecting novel insertion-deletion variants of mid-range size.** *Nucleic acids research*
Xia, L. C., Sakshuwong, S., Hopmans, E. S., Bell, J. M., Grimes, S. M., Siegmund, D. O., Ji, H. P., Zhang, N. R.
2016; 44 (15)
- **POISSON APPROXIMATION FOR TWO SCAN STATISTICS WITH RATES OF CONVERGENCE** *ANNALS OF APPLIED PROBABILITY*
Fang, X., Siegmund, D.
2016; 26 (4): 2384-2418
- **SCAN STATISTICS ON POISSON RANDOM FIELDS WITH APPLICATIONS IN GENOMICS** *ANNALS OF APPLIED STATISTICS*
Zhang, N. R., Yakir, B., Xia, L. C., Siegmund, D.
2016; 10 (2): 726-755

- **HIGHER CRITICISM: p-VALUES AND CRITICISM** *ANNALS OF STATISTICS*
Li, J., Siegmund, D.
2015; 43 (3): 1323-1350
- **SEQUENTIAL MULTI-SENSOR CHANGE-POINT DETECTION** *ANNALS OF STATISTICS*
Xie, Y., Siegmund, D.
2013; 41 (2): 670-692
- **Change-Points: From Sequential Detection to Biology and Back** *SEQUENTIAL ANALYSIS-DESIGN METHODS AND APPLICATIONS*
Siegmund, D.
2013; 32 (1): 2-14
- **SEQUENTIAL MULTI-SENSOR CHANGE-POINT DETECTION** *Information Theory and Applications Workshop*
Xie, Y., Siegmund, D.
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- **MODEL SELECTION FOR HIGH-DIMENSIONAL, MULTI-SEQUENCE CHANGE-POINT PROBLEMS** *STATISTICA SINICA*
Zhang, N. R., Siegmund, D. O.
2012; 22 (4): 1507-1538
- **Spectrum Opportunity Detection with Weak and Correlated Signals** *46th Asilomar Conference on Signals, Systems and Computers*
Xie, Y., Siegmund, D.
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- **False discovery rate for scanning statistics** *BIOMETRIKA*
Siegmund, D. O., Zhang, N. R., Yakir, B.
2011; 98 (4): 979-985
- **DETECTING SIMULTANEOUS VARIANT INTERVALS IN ALIGNED SEQUENCES** *ANNALS OF APPLIED STATISTICS*
Siegmund, D., Yakir, B., Zhang, N. R.
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Tang, H., Siegmund, D. O., Johnson, N. A., Romieu, I., London, S. J.
2010; 34 (8): 783-791
- **Detecting simultaneous changepoints in multiple sequences** *BIOMETRIKA*
Zhang, N. R., Siegmund, D. O., Ji, H., Li, J. Z.
2010; 97 (3): 631-645
- **Detecting simultaneous changepoints in multiple sequences.** *Biometrika*
Zhang, N. R., Siegmund, D. O., Ji, H., Li, J. Z.
2010; 97 (3): 631-645
- **Mapping Quantitative Traits in Unselected Families: Algorithms and Examples** *GENETIC EPIDEMIOLOGY*
Dupuis, J., Shi, J., Manning, A. K., Benjamin, E. J., Meigs, J. B., Cupples, L. A., Siegmund, D.
2009; 33 (7): 617-627
- **Minimax optimality of the Shiryaev-Roberts change-point detection rule** *JOURNAL OF STATISTICAL PLANNING AND INFERENCE*
Siegmund, D. O., Yakir, B.
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