

Weekly Progress Report

Matt Chapman

Week 14, 03/04 - 07/04

References

- [1] M Basseville and Igor V Nikiforov. *Detection of Abrupt Changes: Theory and Application*. 1993. ISBN: 0-13-126780-9. DOI: [10.1016/0967-0661\(94\)90196-1](https://doi.org/10.1016/0967-0661(94)90196-1). URL: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.77.6896%7B%5C%7Drep=rep1%7B%5C%7Dtype=pdf>.
- [2] S. Bersimis, S. Psarakis, and J. Panaretos. “Multivariate statistical process control charts: An overview”. In: *Quality and Reliability Engineering International* 23.5 (2007), pp. 517–543. ISSN: 07488017. DOI: [10.1002/qre.829](https://doi.org/10.1002/qre.829).
- [3] Cody Buntain and Christopher Natoli. “A Brief Comparison of Algorithms for Detecting Change Points in Data”. In: ().
- [4] Frédéric Desobry, Manuel Davy, and Christian Doncarli. “An online Kernel change detection algorithm”. In: *IEEE Transactions on Signal Processing* 53.8 (2005), pp. 2961–2974. ISSN: 1053587X. DOI: [10.1109/TSP.2005.851098](https://doi.org/10.1109/TSP.2005.851098).
- [5] Allen B. Downey. “A novel changepoint detection algorithm”. In: *Applied Microbiology and Biotechnology* (2008), pp. 1–11. arXiv: [0812.1237](https://arxiv.org/abs/0812.1237). URL: <http://arxiv.org/abs/0812.1237>.
- [6] Jeremy Ginsberg et al. “Detecting influenza epidemics using search engine query data.” In: *Nature* 457.7232 (2009), pp. 1012–4. ISSN: 1476-4687. DOI: [10.1038/nature07634](https://doi.org/10.1038/nature07634). URL: <http://www.ncbi.nlm.nih.gov/pubmed/19020500>.
- [7] Yoshinobu Kawahara and Masashi Sugiyama. “Change-point detection in time-series data by direct density-ratio estimation”. In: *Proceedings of the 2009 SIAM International Conference on Data Mining* (2009), pp. 389–400.
- [8] Daniel Kifer, Shai Ben-david, and Johannes Gehrke. “Detecting Change in Data Streams”. In: *Proceedings of the 30th VLDB Conference* (2004), pp. 180–191. ISSN: 00394564. DOI: [10.1016/0378-4371\(94\)90421-9](https://doi.org/10.1016/0378-4371(94)90421-9). arXiv: [9310008](https://arxiv.org/abs/9310008) [cond-mat].
- [9] Martin Kulldorff et al. “A space-time permutation scan statistic for disease outbreak detection”. In: *PLoS Medicine* 2.3 (2005), pp. 0216–0224. ISSN: 15491277. DOI: [10.1371/journal.pmed.0020059](https://doi.org/10.1371/journal.pmed.0020059).
- [10] Tze Leung Lai and Jerry Zhaolin Shan. “Efficient recursive algorithms for detection of abrupt changes in signals and control systems”. In: *IEEE Transactions on Automatic Control* 44.5 (1999), pp. 952–966. ISSN: 00189286. DOI: [10.1109/9.763211](https://doi.org/10.1109/9.763211).
- [11] Calle Madrid et al. “Variance Changes Detection in Multivariate Time Series”. 2004.
- [12] David S. Matteson and Nicholas A. James. “A nonparametric approach for multiple change point analysis of multivariate data”. In: *Submitted* 14853 (2012), pp. 1–29. ISSN: 0162-1459. DOI: [10.1080/01621459.2013.849605](https://doi.org/10.1080/01621459.2013.849605). arXiv: [1306.4933](https://arxiv.org/abs/1306.4933).

- [13] Anita M Pelecanos, Peter a Ryan, and Michelle L Gatton. “Outbreak detection algorithms for seasonal disease data: a case study using Ross River virus disease.” In: *BMC medical informatics and decision making* 10.1 (2010), p. 74. ISSN: 1472-6947. DOI: [10.1186/1472-6947-10-74](https://doi.org/10.1186/1472-6947-10-74). URL: <http://www.biomedcentral.com/1472-6947/10/74>.
- [14] D. Siegmund and E. S. Venkatraman. “Using the generalized likelihood ratio statistic for sequential detection of a change-point”. In: *The Annals of Statistics* 23.1 (1995), pp. 255–271. ISSN: 0090-5364. DOI: [10.1214/aos/1176324466](https://doi.org/10.1214/aos/1176324466).
- [15] Alexander G Tartakovsky and Boris L Rozovskii. “A Nonparametric Multichart CUSUM Test for Rapid Intrusion Detection”. In: *Proceedings of Joint Statistical Meetings* (2005), pp. 7–11.
- [16] Alexander G. Tartakovsky et al. “Detection of intrusions in information systems by sequential change-point methods”. In: *Statistical Methodology* 3.3 (2006), pp. 252–293. ISSN: 15723127. DOI: [10.1016/j.stamet.2005.05.003](https://doi.org/10.1016/j.stamet.2005.05.003).
- [17] Zachary Tong. *Staying in control with moving averages, part 1*. 2015. URL: <https://www.elastic.co/blog/staying-in-control-with-moving-averages-part-1>.
- [18] Alan S. Willsky and Harold L. Jones. “A Generalized Likelihood Ratio Approach to the Detection and Estimation of Jumps in Linear Systems”. In: *IEEE Transactions on Automatic Control* 21.1 (1976), pp. 108–112. ISSN: 15582523. DOI: [10.1109/TAC.1976.1101146](https://doi.org/10.1109/TAC.1976.1101146).