

RESEARCH PUBLICATIONS

Pietro Coretto

Friday 1st July, 2022

Papers in journals (with peer-review)

- Coretto, P. and C. Hennig (2010). A simulation study to compare robust clustering methods based on mixtures. *Advances in Data Analysis and Classification*, vol. 4(2): pages 111–135. URL: <https://www.doi.org/10.1007/s11634-010-0065-4>.
- Coretto, P. and C. Hennig (2011). Maximum likelihood estimation of heterogeneous mixtures of gaussian and uniform distributions. *Journal of Statistical Planning and Inference*, vol. 141(1): pages 462–473. URL: <https://www.doi.org/10.1016/j.jspi.2010.06.024>.
- Coretto, P. (2013). Discussion (invited) of: How to find an appropriate clustering for mixed-type variables with application to socio-economic stratification; by C. Hennig and T. F. Liao. *Journal of the Royal Statistical Society, Series C (Applied Statistics)*, vol. 62: pages 346–347. URL: <https://doi.org/10.1111/j.1467-9876.2012.01066.x>.
- Coretto, P. and C. Hennig (2016). Robust improper maximum likelihood: tuning, computation, and a comparison with other methods for robust gaussian clustering. *Journal of the American Statistical Association*, vol. 111(516): pages 1648–1659. URL: <https://www.doi.org/10.1080/01621459.2015.1100996>.
- Coretto, P. and C. Hennig (2017). Consistency, breakdown robustness, and algorithms for robust improper maximum likelihood clustering. *Journal of Machine Learning Research*, vol. 18(142): pages 1–39. URL: <http://jmlr.org/papers/v18/16-382.html>.
- Coretto, P. and F. Giordano (2017). Nonparametric estimation of the dynamic range of music signals. *Australian & New Zealand Journal of Statistics*, vol. 59(4): pages 389–412. URL: <https://www.doi.org/10.1111/anzs.12217>.
- Serra, A., P. Coretto, M. Fratello, and R. Tagliaferri (2018). Robust and sparse correlation matrix estimation for the analysis of high-dimensional genomics data. *Bioinformatics*, vol. 34(4): pages 625–634. URL: <https://www.doi.org/10.1093/bioinformatics/btx642>.
- Coretto, P., A. Serra, and R. Tagliaferri (2018). Robust clustering of noisy high-dimensional gene expression data for patients subtyping. *Bioinformatics*, vol. 34(23): pages 4064–4072. URL: <https://www.doi.org/10.1093/bioinformatics/bty502>.
- Serra, A., S. Önlü, P. Coretto, and D. Greco (2019). An integrated quantitative structure and mechanism of action-activity relationship model of human serum albumin binding. *Journal of Cheminformatics*, vol. 11(38): pages 1–10. URL: <https://www.doi.org/10.1186/s13321-019-0359-2>.
- Giordano, F. and P. Coretto (2020). A monte carlo subsampling method for estimating the distribution of signal-to-noise ratio statistics in nonparametric time series regression models. *Statistical Methods & Applications*, vol. 29(3): pages 483–514. URL: <https://www.doi.org/10.1007/s10260-019-00487-5>.
- Coretto, P. (2020). Discussion (invited) of: Multiple-systems analysis for the quantification of modern slavery: classical and bayesian approaches; by Bernard W. Silverman. *Journal of the Royal Statistical Society, Series A (Statistics in Society)*, vol. 183(3): pages 725–726. URL: <https://www.doi.org/10.1111/rssa.12505>.

- Coretto, P., M. La Rocca, and G. Storti (2020). Improving many volatility forecasts using cross-sectional volatility clusters. *Journal of Risk and Financial Management*, vol. 13(4): pages 1–23. URL: <https://www.doi.org/10.3390/jrfm13040064>.
- Storti, G. and P. Coretto (2020). Discussion (invited) of: Linear mixed effects models for non-gaussian continuous repeated measurement data; by O. Asar, D. Bolin, P. J. Diggle and J. wallin. *Journal of the Royal Statistical Society, Series C (Applied Statistics)*, vol. 69(5): page 46. URL: <https://doi.org/10.1111/rssc.12405>.
- Hennig, C. and P. Coretto (2021). An adequacy approach for deciding the number of clusters for otrimle robust gaussian mixture-based clustering. *Australian & New Zealand Journal of Statistics*, pages 1–25. URL: <https://doi.org/10.1111/anzs.12338>.
- Coretto, P. (2022). Estimation and computations for gaussian mixtures with uniform noise under separation constraints. *Statistical Methods & Applications*, vol. 31(2): pages 427–458. URL: <https://doi.org/10.1007/s10260-021-00578-2>.

Papers in book collections (with peer-review)

- Coretto, P. and C. Hennig (2010). A simulation study to compare robust clustering methods based on mixtures. *Advances in Data Analysis and Classification*, vol. 4(2): pages 111–135. URL: <https://www.doi.org/10.1007/s11634-010-0065-4>.
- Coretto, P. and C. Hennig (2011). Maximum likelihood estimation of heterogeneous mixtures of gaussian and uniform distributions. *Journal of Statistical Planning and Inference*, vol. 141(1): pages 462–473. URL: <https://www.doi.org/10.1016/j.jspi.2010.06.024>.
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- Coretto, P. and C. Hennig (2017). Consistency, breakdown robustness, and algorithms for robust improper maximum likelihood clustering. *Journal of Machine Learning Research*, vol. 18(142): pages 1–39. URL: <http://jmlr.org/papers/v18/16-382.html>.
- Coretto, P. and F. Giordano (2017). Nonparametric estimation of the dynamic range of music signals. *Australian & New Zealand Journal of Statistics*, vol. 59(4): pages 389–412. URL: <https://www.doi.org/10.1111/anzs.12217>.
- Serra, A., P. Coretto, M. Fratello, and R. Tagliaferri (2018). Robust and sparse correlation matrix estimation for the analysis of high-dimensional genomics data. *Bioinformatics*, vol. 34(4): pages 625–634. URL: <https://www.doi.org/10.1093/bioinformatics/btx642>.
- Coretto, P., A. Serra, and R. Tagliaferri (2018). Robust clustering of noisy high-dimensional gene expression data for patients subtyping. *Bioinformatics*, vol. 34(23): pages 4064–4072. URL: <https://www.doi.org/10.1093/bioinformatics/bty502>.
- Serra, A., S. Önlü, P. Coretto, and D. Greco (2019). An integrated quantitative structure and mechanism of action-activity relationship model of human serum albumin binding. *Journal of Cheminformatics*, vol. 11(38): pages 1–10. URL: <https://www.doi.org/10.1186/s13321-019-0359-2>.
- Giordano, F. and P. Coretto (2020). A monte carlo subsampling method for estimating the distribution of signal-to-noise ratio statistics in nonparametric time series regression models. *Statistical Methods & Applications*, vol. 29(3): pages 483–514. URL: <https://www.doi.org/10.1007/s10260-019-00487-5>.

- Coretto, P. (2020). Discussion (invited) of: Multiple-systems analysis for the quantification of modern slavery: classical and bayesian approaches; by Bernard W. Silverman. *Journal of the Royal Statistical Society, Series A (Statistics in Society)*, vol. 183(3): pages 725–726. URL: <https://www.doi.org/10.1111/rssa.12505>.
- Coretto, P., M. La Rocca, and G. Storti (2020). Improving many volatility forecasts using cross-sectional volatility clusters. *Journal of Risk and Financial Management*, vol. 13(4): pages 1–23. URL: <https://www.doi.org/10.3390/jrfm13040064>.
- Storti, G. and P. Coretto (2020). Discussion (invited) of: Linear mixed effects models for non-gaussian continuous repeated measurement data; by O. Asar, D. Bolin, P. J. Diggle and J. wallin. *Journal of the Royal Statistical Society, Series C (Applied Statistics)*, vol. 69(5): page 46. URL: <https://doi.org/10.1111/rssc.12405>.
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- Coretto, P. (2022). Estimation and computations for gaussian mixtures with uniform noise under separation constraints. *Statistical Methods & Applications*, vol. 31(2): pages 427–458. URL: <https://doi.org/10.1007/s10260-021-00578-2>.

Papers in conference proceedings (with peer-review)

- Coretto, P. and C. Hennig (2010). A simulation study to compare robust clustering methods based on mixtures. *Advances in Data Analysis and Classification*, vol. 4(2): pages 111–135. URL: <https://www.doi.org/10.1007/s11634-010-0065-4>.
- Coretto, P. and C. Hennig (2011). Maximum likelihood estimation of heterogeneous mixtures of gaussian and uniform distributions. *Journal of Statistical Planning and Inference*, vol. 141(1): pages 462–473. URL: <https://www.doi.org/10.1016/j.jspi.2010.06.024>.
- Coretto, P. (2013). Discussion (invited) of: How to find an appropriate clustering for mixed-type variables with application to socio-economic stratification; by C. Hennig and T. F. Liao. *Journal of the Royal Statistical Society, Series C (Applied Statistics)*, vol. 62: pages 346–347. URL: <https://doi.org/10.1111/j.1467-9876.2012.01066.x>.
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- Serra, A., P. Coretto, M. Fratello, and R. Tagliaferri (2018). Robust and sparse correlation matrix estimation for the analysis of high-dimensional genomics data. *Bioinformatics*, vol. 34(4): pages 625–634. URL: <https://www.doi.org/10.1093/bioinformatics/btx642>.
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