



PROBABILITY SEMINAR

Goodness of fit Tests based on Mallows-Wasserstein distance

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Abstract. The goodness of fit techniques are based on measuring in some way the conformity of the sample data to the hypothesized distribution, or, equivalently, its discrepancy from it. The techniques usually give formal statistical tests and the measures of consistency or of discrepancy are test statistics.

In this seminar, we will discuss about goodness of fit tests based on 2nd-order Mallows-Wasserstein distance between the empirical distribution and a location-scale family of distributions generated by a distribution.

References

- [1] Cuesta A., del Barrio, E., Matrán C.(2000). *Contributions of Empirical and Quantile Processes to the Asymptotic Theory of Goodness-of-Fit-Tets-* Sociedad de Estadística e Investigación Operativa, vol 0,1-96.
- [2] Del Barrio, E., Cuesta-Albertos, J.A., Matrán C. and Rodríguez-Rodríguez, J.M.(1999). *Tests of goodness of fit based on the L_2 -Wassertein distance,-* Annals of estatistics, vol 27,1230-1239.
- [3] Dorea, C.C.Y. and Lopes, L.P.(2014) *Weighted Similarity Tests for Location-scale families of Stable Distributions.* Acta Mathematica Hungarica, vol 134(1-2),1-11.