

PhD program in Statistics

**DSS Statistics Seminar**

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<https://uniroma1.zoom.us/j/86881977368?pwd=SWRFcVFjMDZTa0lXZk05TE1zNm5adz09>  
Passcode: 432940

# Stein's Method Meets Statistics: A Review of Some Recent Developments

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Stein's method compares probability distributions through the study of a class of linear operators called Stein operators. While initially studied in the field of probability, Stein's method has led to significant advances in theoretical statistics, computational statistics and machine learning in recent years. In this talk, I will present some of these recent developments and, in doing so, try to stimulate further research into the successful field of Stein's method and statistics. The topics I shall discuss include (if the time permits) new insights into the finite-sample approximation of estimators (like maximum likelihood estimators), a measure of the impact of the prior choice in Bayesian statistics, tools to benchmark and compare sampling methods such as approximate Markov chain Monte Carlo, deterministic alternatives to sampling methods, parameter estimation and goodness-of-fit testing.

This talk is based on a large collaborative effort with many co-authors.



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