

PhD program in Statistics

## DSS Statistics Seminar

# December 2, 2022, 12:00

**In person** Room 34 (CU002)

**Webinar** [https://uniroma1.zoom.us/j/86881977368?pwd=SWRFc](https://uniroma1.zoom.us/j/86881977368?pwd=SWRFcVFjMDZTa0lXZk05TE1zNm5adz09)

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**Passcode: 432940**

Pseudo-populations resampling  
for finite populations under  
complex designs

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The present talk is devoted to resampling for finite populations when the sampling design is not simple. As a consequence of the complex sampling design, there is dependence among sampled units. Hence, classical Efron bootstrap does not work in the case under examination.

Resampling schemes based on pseudo-populations will be developed, and their main justifications and properties will be shown. The approach used is of asymptotic nature, and parallels results obtained by Bickel and Friedman for the i.i.d. case.

Main applications of theoretical results are devoted to the construction of confidence intervals for finite population parameters.

Finally, computational issues will be discussed.



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