

BIostatISTICS SEMINAR

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“Efron’s Rule” for Estimation in Model Selection after Imputation

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3:30pm - 4:30pm, Dentistry 13-041

Refreshments served at 3:00 PM in room 51-254 CHS

ABSTRACT:

Missing data is often handled using multiple imputation and the parameters are estimated using Rubin's rule. If model selection is performed after multiple imputation, we propose Efron's rule for coefficient estimation and variance estimation. Model selection is performed after a single imputation to a bootstrapped sample, a smoothed estimate will be used for point estimate and smoothed variance estimate (Efron 2014) will be used for variable estimate. The simulation studies show that the Efron's rule will give less biased estimate and more efficient variance estimate compared to methods proposed in literatures.