psd

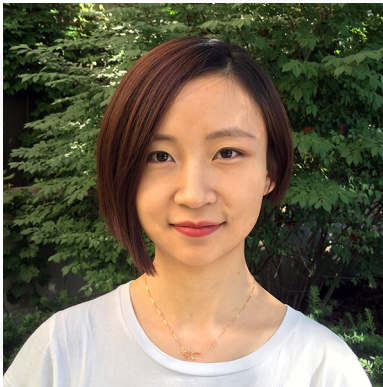# Statistical Inference for RNA Editing Rate Comparison

WHEN
May, 11th, 2021
1:00 PM, CDT

WHERE
Via ZOOM
ZOOM information will be provided in the email announcement for this seminar.

Jane Zhang, MS candidate

A fundamental task in studying the association between disease and post-transcription modification is to compare the RNA A-to-I editing rates between groups. However, current methods assume that the samples within each cell group share the same editing rate, which has been proved to be problematic by recent studies. Moreover, they do not allow the incorporation of previous expert knowledge. We introduced a new model for editing rates and developed both frequentist (a likelihood ratio test) and Bayesian inference methods. We systematically evaluated the methods performance by simulations. Furthermore, we demonstrated their advantages over existing methods in several scenarios.

stat.uchicago.edu

THE UNIVERSITY OF CHICAGO | DEPARTMENT OF STATISTICS