

MASTER'S THESIS PRESENTATION

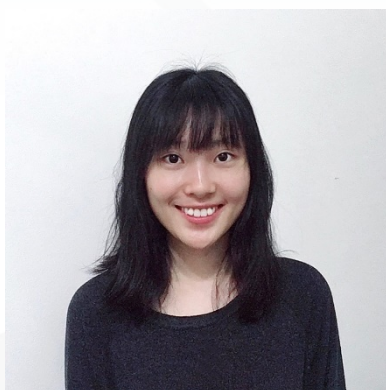
Strategies to Improve the Test Statistics for Searching for Consistent Associations with a Multi-environment Knockoff Filter

WHEN

April 18, 2022
2:00PM

WHERE

Jones Laboratory, Room 226

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In practice, we might want to know which variables are truly associated with a certain outcome across multi-environments among a large number of variables. To solve this problem, there is a current method that uses the Model-X knockoff filter to search for constant association across multi-environment while controlling the false discovery rate. In this paper, we provide more perspectives and possible improvements to the current method by exploring different ways to reconstruct the test statistics. We also have synthetic data simulations to show that our new test statistics improve the power of the test while controlling the false discovery rate.

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