

psd

MASTER'S THESIS PRESENTATION

# Cascading Failure Event Computation with Optimal Control

WHEN

May, 10th, 2021  
3:00 PM, CDT

WHERE

Via ZOOM

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



**Pinrui Yu, MS candidate**

In this paper, to overcome the problem of high computation complexity existing in geometric minimum action method (gMAM) when computing the most possible exit path, we build Euler-Lagrange equation and use shooting method instead and compare it with gMAM on the numerical example, which illustrates the advantages of shooting method both in accuracy and efficiency. Numerical simulation is also given in this paper and we compare the performance of these two methods when computing the optimal exit trajectory.

[stat.uchicago.edu](http://stat.uchicago.edu)



THE UNIVERSITY OF  
**CHICAGO**

DEPARTMENT OF STATISTICS