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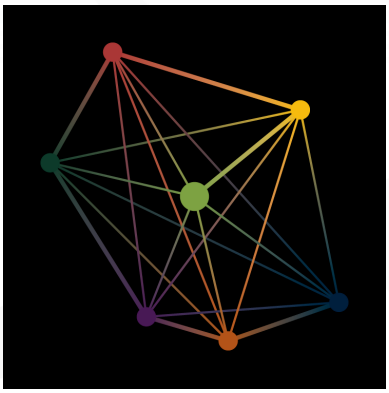
MASTER'S THESIS PRESENTATION

# High Dimensional Model Selection Problem for Asset Pricing Model

**WHEN**
**May 4, 2022**
**2:30 PM**

**WHERE**
**Zoom Meeting**

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In 2018, Barillas and Shanken proposed a framework of asset pricing model. And based on that, Chib, Zeng, and Zhao (2020) proposed a valid model selection method (CZZ method henceforth) designed for low-dimensional cases. Nowadays, with a growing variety of tradable factors, a natural interest in high-dimensional model selection arises. This article first extends the idea of the CZZ method to the sparse high-dimensional case. By assigning a flat prior distribution of the model space, we can use techniques like Gibbs sampling to sample from the posterior distribution of the model space. Then, the article shows using a Spike-and-Slab Lasso type of prior can greatly speed up the convergence of the sampling. Finally, the article ends with a bunch of simulation exercises that prove the validity and efficiency of our method.


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