



THE UNIVERSITY OF CHICAGO

Department of Statistics

DISSERTATION PROPOSAL

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Deep Generative Model: Apply,
Design and Improve

TUESDAY, November 17, 2020, at 11:00 AM
ZOOM Meeting

ABSTRACT

The generative model is a statistical method that aims to learn an underlying data distribution that can potentially be used for downstream tasks. Equipped with deep neural networks, deep generative models become more and more powerful in learning the distribution of complicated high dimensional data. The thesis will mainly focus on recent deep generative models and propose new algorithms aiming for better sample quality or improving the performances for downstream tasks. This proposal will first introduce modern deep generative models, then discuss three projects, which include: Generative Latent Flow, Likelihood Regret and Energy-based model exponential tilting. In the end, potential future directions of exploring deep generative models are proposed.