

## 4TU.AMI Conference "Mathematics on Deep Learning"

**Jim Portegies** - Department of Mathematics and Computer Science, Eindhoven University of Technology

Diffusion Variational Autoencoders

We will discuss Diffusion Variational Autoencoders, which allow for a space of latent variables with a structure of a manifold, and our motivation to introduce them. In particular, can Variational Autoencoders pick up latent variables that humans think are obvious? Can they capture the topological or geometrical structure of the latent variables?