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# Modeling of vertical and horizontal variation in multivariate functional data

*Tuesday, 15 August 2017 16:00 (30 minutes)*

We present a model for multivariate functional data that simultaneously model vertical and horisontal variation.
Horisontal variation is modeled using warping functions represented by latent gaussian variables.
Vertical variation is modeled using Gaussian processes using a generally applicable low-parametric covariance structure.
We devise a method for maximum likelihood estimation using a Laplace approximation and apply it to three different data sets.

**Primary author:** Mr OLSEN, Niels (Københvans Universitet)

**Presenter:** Mr OLSEN, Niels (Københvans Universitet)