

## Mathieu Fauvel - Generative models for satel-

During ANITI 1.0, the CESBIO lab has worked on generative models for the analysis of satellite images. In a first PhD work (Y. Zérah), a physical model was used to constrain the latent space of a variational auto-encoder. Such formulation allows the self-supervised learning of the estimation of biophysical parameters of vegetation. In a second PhD work (V. Bellet), a variational formulation of Gaussian Process classification is used to model the spatio-temporal structure of the satellite time series. In particular, this model enables the classification of massive irregular and unaligned image time series.

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