

TITLE: Satellite image downscaling

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Satellite images provide crucial information about earth's environment but are often only available at coarse spatial resolutions. Downscaling is a commonly used process of increasing the spatial resolution of satellite data. In recent years, deep learning has become popular for this task, but these models are challenging to train when there are limited data high higher spatial resolution. In this project we will use transfer learning on a pre-trained convolutional neural network based on a subset of finely spatially resolved satellite images of atmospheric properties. With this approach we aim to downscale a long time series of images that are available both before and after the training period.