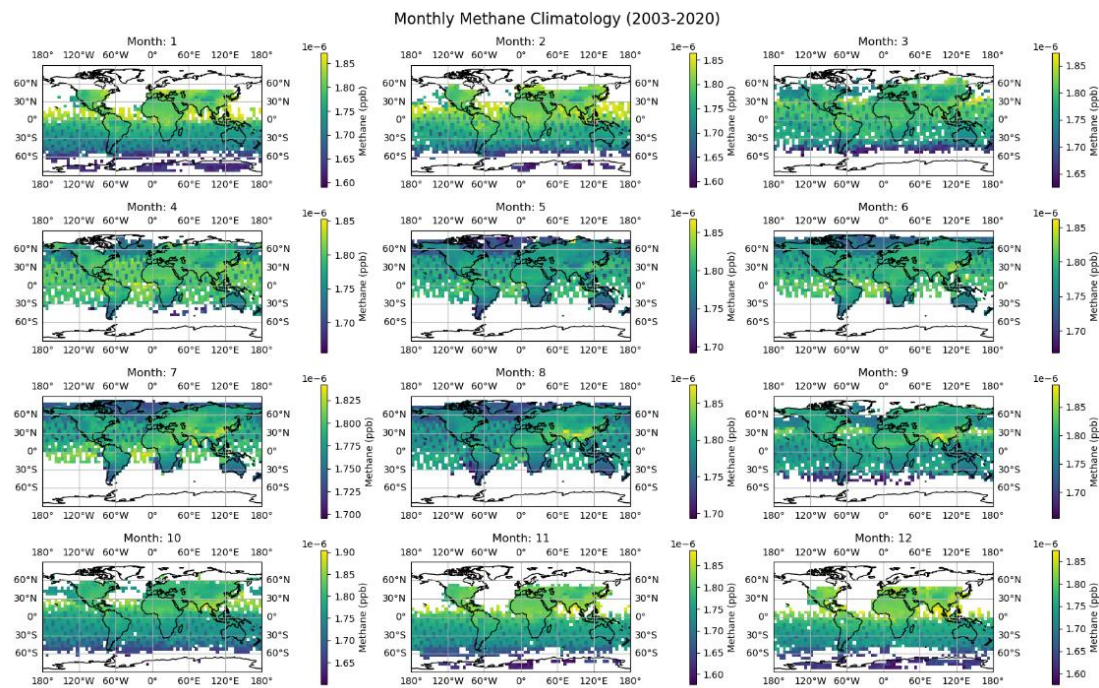
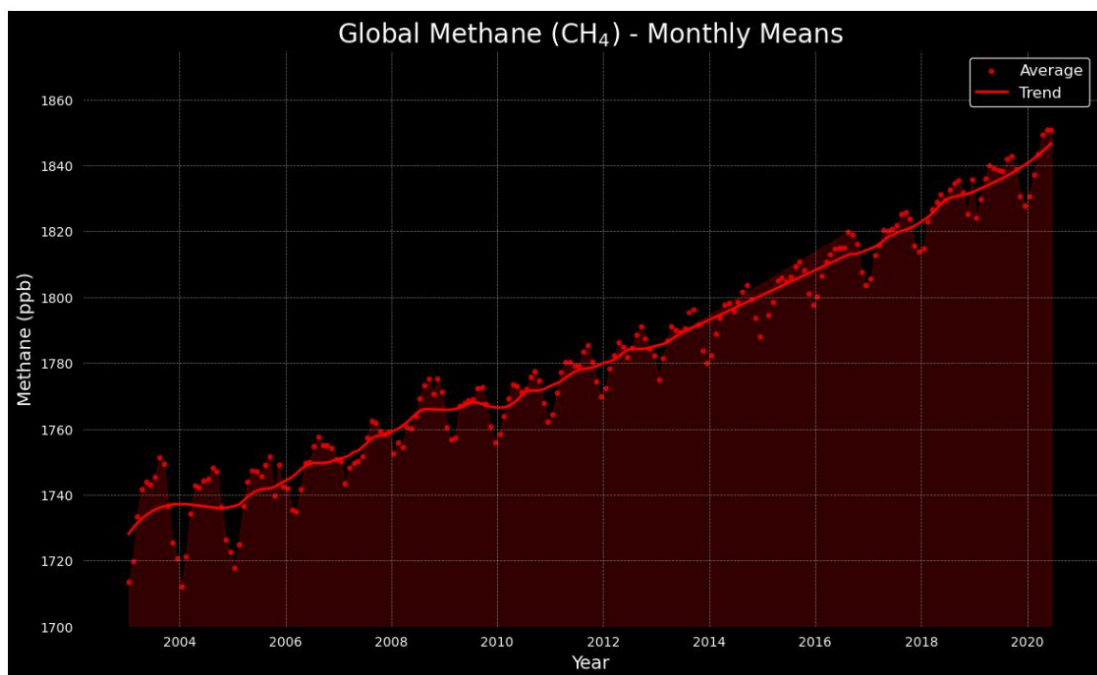


# 1. Global methane levels from 2002

## 1.1



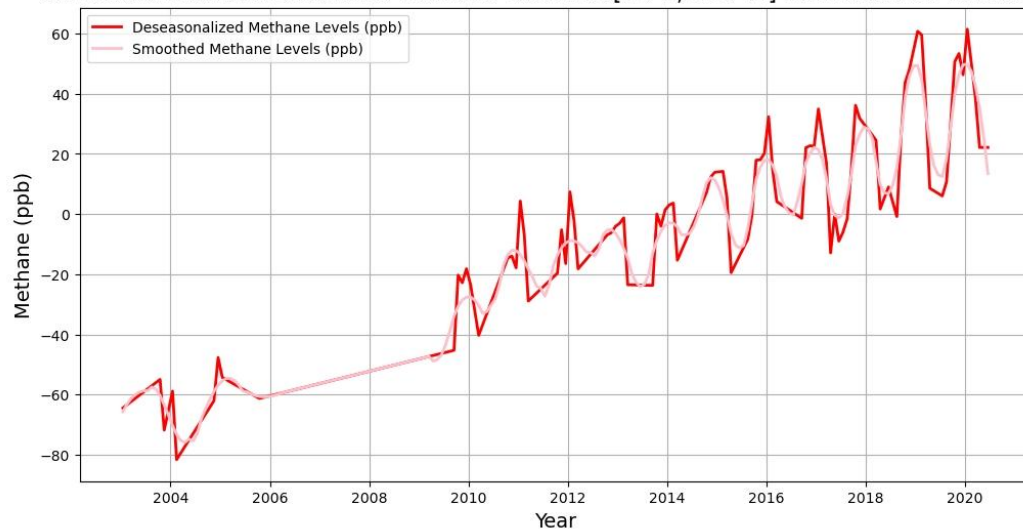
## 1.2



Globally-averaged methane from 2003-01 to 2020-06 sustained growth, and the growth trend from 2010 to 2014 was relatively slow, while the growth trend from 2018 to 2020 was relatively rapid.

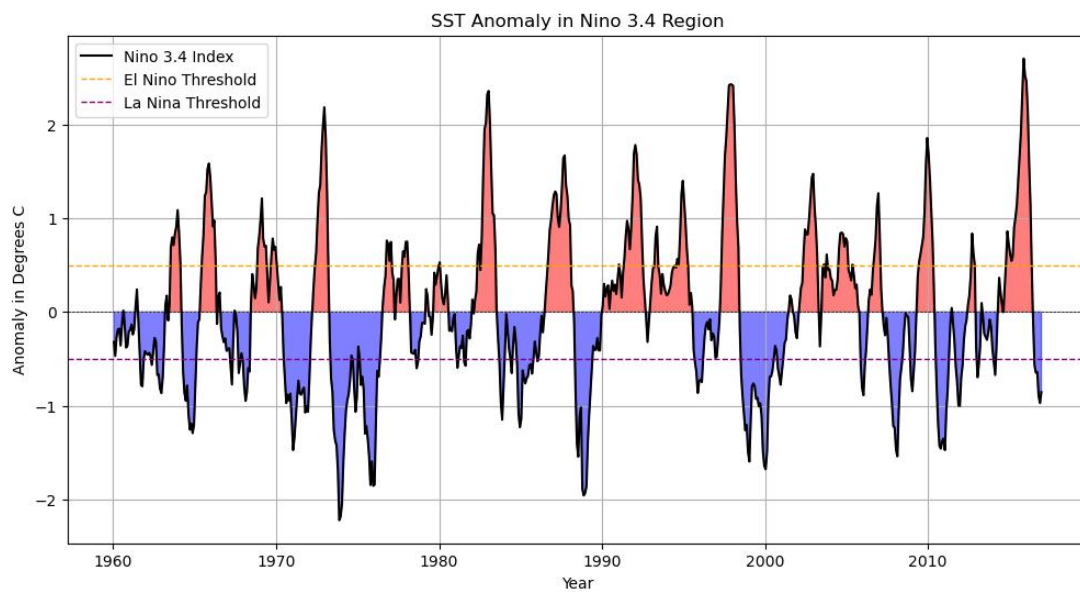
### 1.3

Deseasonalized and Smoothed Methane Levels at [15°S, 150°W] from 2003-01 to 2020-06



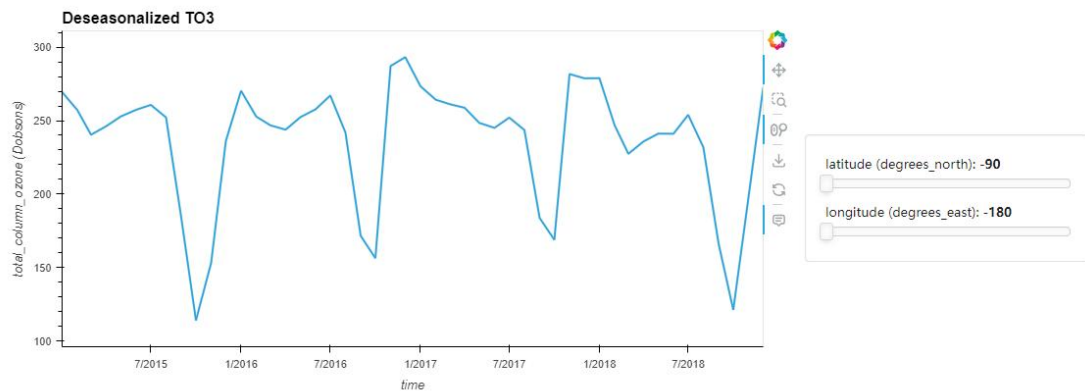
The deseasonalized time series shows the variation in methane levels at [15°S, 150°W] without the influence of the annual seasonal cycle.

## 2. Niño 3.4 index

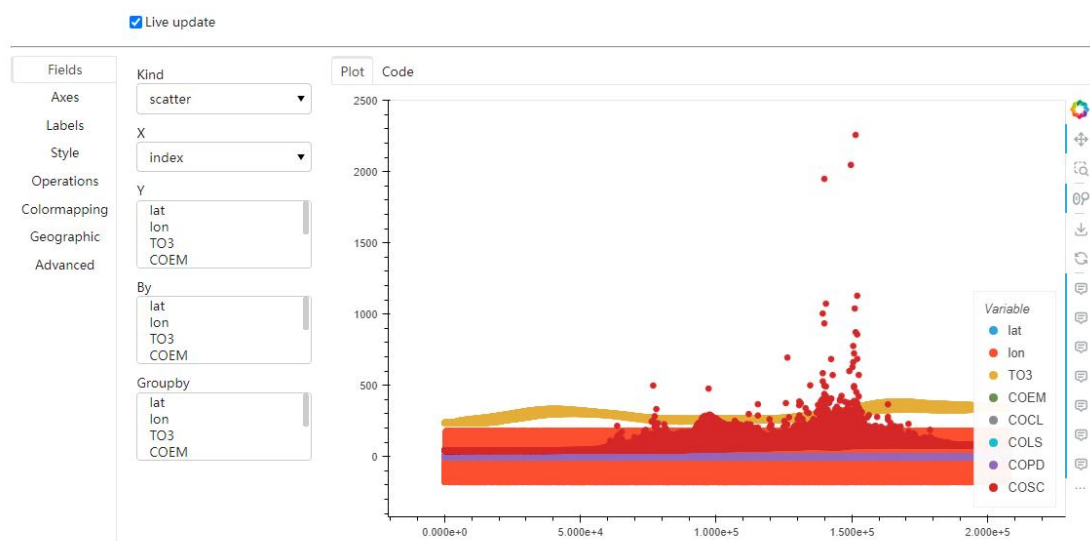


## 3. Explore a netCDF dataset

### # 3. Interactive graphics - use hvplot



### # 7. Interactive mapping of data sets



Others are showed in PS3.ipynb