NenuFAR Python Tools Nenupy

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Tracking observation

- We will work on the following BST observation:

  `/databf/nenufar/20190308_022000_20190308_062100_JUPITER_TRACKING_BHR`

- Using command-lines:

  - Display informations

  - Plot the 'NW'-polarization light-curve at 55 MHz

  - Plot the dynamic spectrum via command-line

- Within python:

  - Display informations

  - Plot a lightcurve

  - Plot the dynamic spectrum

  - Plot the instantaneous spectrum at a particular time using 'obstart' and 'obstop' attributes

Transit observation

- We will work on the following BST observation:

    `/databf/nenufar/20181107_183700_20181107_213800_CAS_A_TRANSIT`

- Using command-lines:

    - Plot the 'NW'-polarization light-curve at 55 MHz and show the theoretical transit time

    - Plot the dynamic spectrum via command-line

    - Display the polar plot 'GSM x beam' at (~close to) the transit time

- Within python:

    - Display informations

    - Plot a lightcurve

    - Simulate the beam

    - Simulate an instantaneous spectrum

Dynspec

```
/cep/lofar/nenufar/nenufar-tf/nenufar_tf.py 0
```

```
/cep/lofar/nenufar/nenufar-tf/nenufar_raw.py
```

- You can copy **/cep/lofar/nenufar/nenufar-tf/** and modify the scripts

- This is a preliminary script, will eventually be included within nenupy