## Data Models and interface.

Notes taken by F. Acero during the discussion on data model and interfaces.

## Discussion about data models, serialization and model representation

Temporal models need to add a scale and format (MJD or something else. Comparable with astropy)

After fit serialized models have parameters are linked or frozen

What happens if you serialize a model like  $a^*b + c =>$ Unit test ? When serializing a model, add the metadata information like the name and version of gammapy

String representation of Sky\_models ?

No arithmetic of parameters and better string representation of linked parameters

Datasets names. Not all models are applied to all datasets (e.g. Fermi+CTA) How to have a nice representation of the models with datasets, spectral, temporal, spatial models.

A graphical representation would be nice to show who's linked to what. Example of sklearn ? : https://scikit-learn.org/stable/auto\_examples/ miscellaneous/plot\_pipeline\_display.html

## Interface with external models

Tabulated models: right now can read a pregenerated table and interpolate (linearly) over it.

Interface with C code model with gammapy. Could be a recipe to show how to link C code to gammapy

Direct call to GAMERA with gammapy

Interface with Bayesian samplers Ala astromodels

Make a pdf of this and put it on indico

https://agnpy.readthedocs.io/en/latest/fit.html

https://libgamera.github.io/GAMERA/