Introducing pyspi

- Multi-Mission, Multi-wavelength, Multi-species analysis
- Plugin based system (many provided but build your own)
- Maximum Likelihood and Bayesian analysis
- Time-Energy-Polarization dependent likelihoods
- Python based + C interface

**CONCEPT**

- Generic XY data
- OGIP/FITS/XSPEC-style data
- Photometric Spectra
- Binned Likelihood Profiles
- Fermi-LAT
- HAWC
- VERITAS
- POLAR
- SPI

**MODELS**

- 1,2,3-D models
- Basic spectral models
- Extended source models (dark matter, etc.)
- All XSPEC models
- Custom models (on the fly!)

**FITTING**

- Optimization
  - minuit
  - ROOT
  - PyGMO
- Bayesian
  - emcee
  - multinest
  - polychord
  - Stan

- Pure python interface
- Simultaneous source and background analysis via forward-modeling
- Unbinned likelihood spectral analysis
- Joint fits with other instruments
- Install easily without OSA

On behalf of the 3ML team