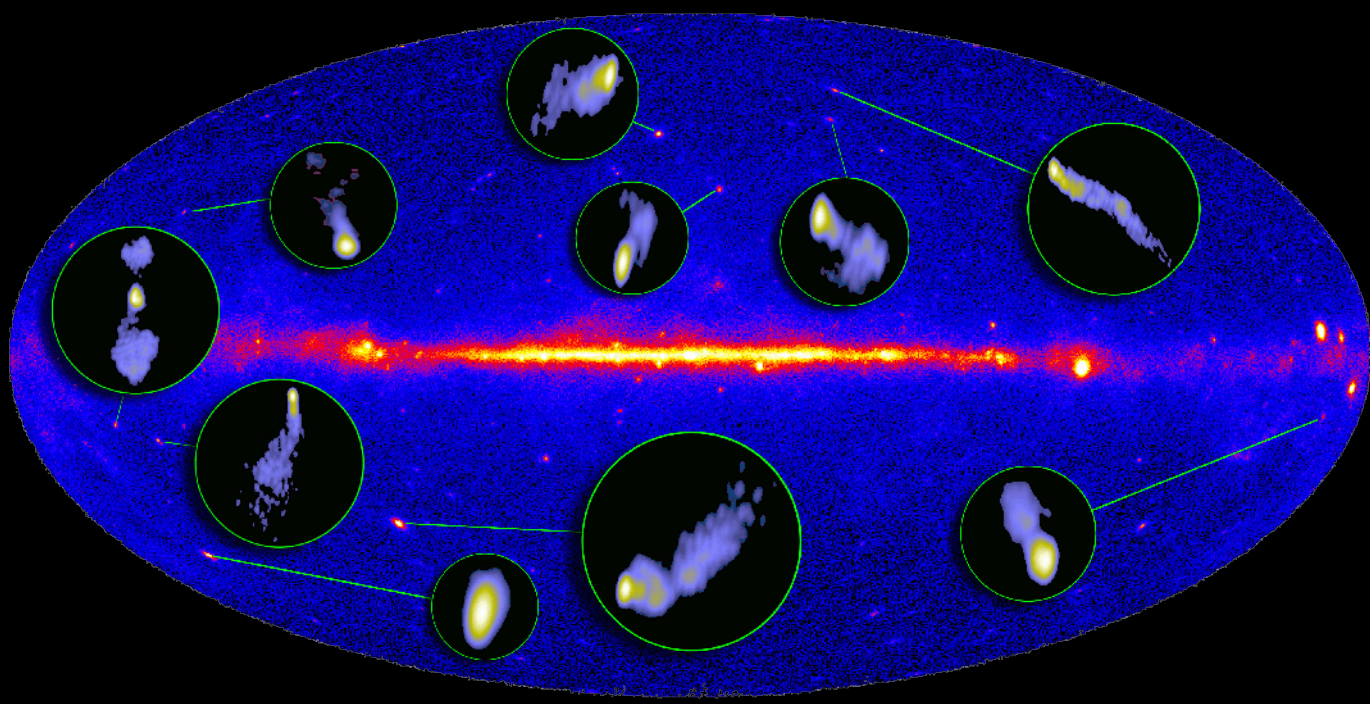


The spectral energy distribution of gamma-faint compact radio sources



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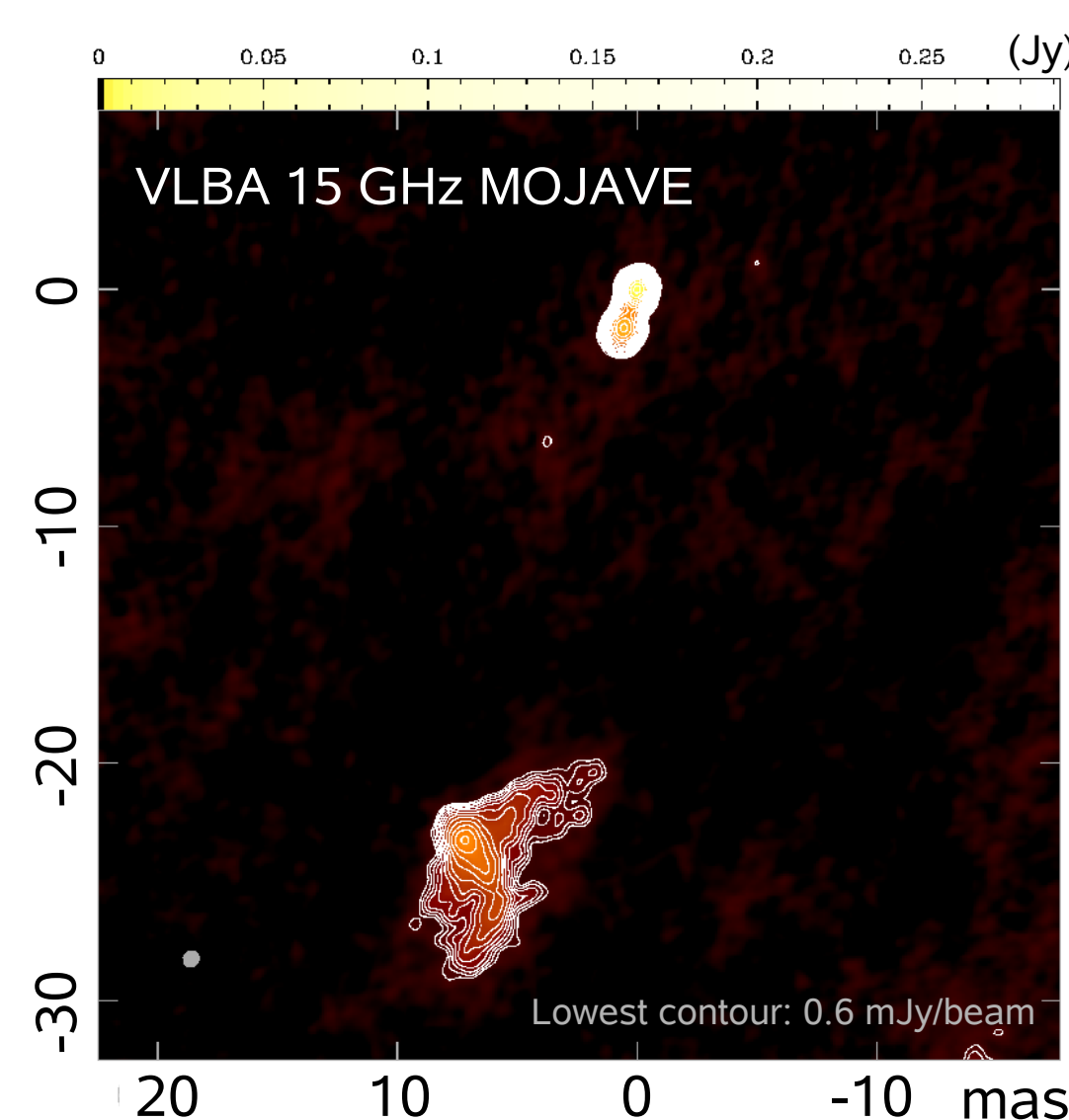
Summary: We are observing the complete MOJAVE-I sample of 135 AGN with Swift to complement the SED provided from radio to γ -ray. Preliminary results on six gamma-weak sources are shown here.

The Project

The MOJAVE phase I project (Lister et al. 2009, AJ, 137, 3718) is a VLBI program which monitors a statistically complete, radio-selected sample of 135 relativistically beamed, flat-spectrum active galactic nuclei (AGN) over more than a decade. In order to understand the high-energy behavior of this radio complete sample, we are performing *Swift* fill-in observations on the complete MOJAVE I sample since 2007. The complete study of the spectral energy distribution (SED) from radio to X-ray bands on this radio-selected sample will provide us an opportunity to understand the nature of AGN.

Since *Fermi*'s launch, a significant fraction of sources from our sample are detected by LAT. For the LAT-detected sources, the broadband SED study from radio to gamma-ray will provide physical insights of AGN mechanism. On the other hand, the radio-to-X-ray SED study helps us to understand the LAT-non-detected sources, and to understand the reasons of the lack of emission at higher energies.

Here we present the preliminary results of the SED of six gamma-quiet/faint MOJAVE sources from this project; none of them was detected by EGRET.



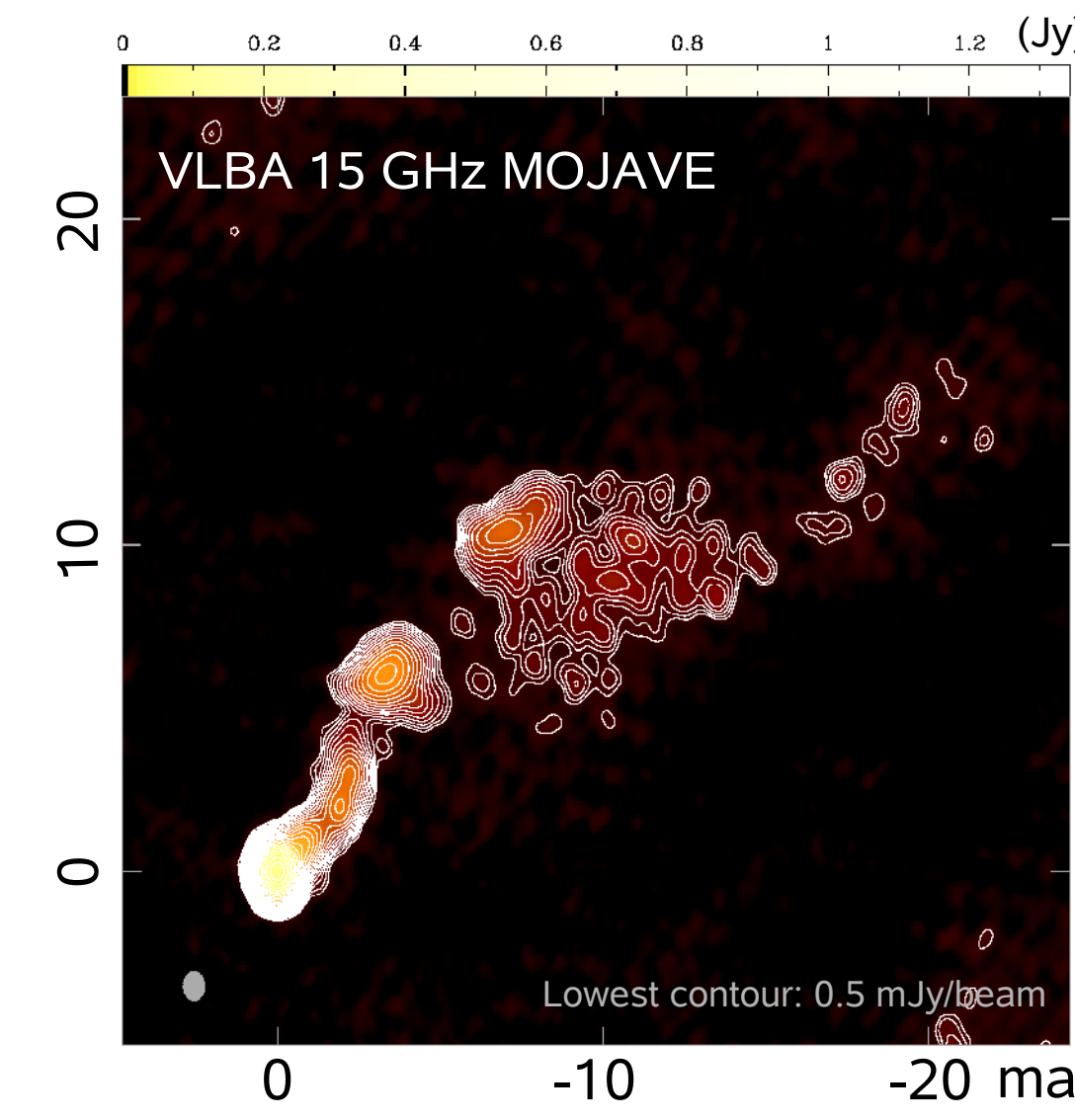
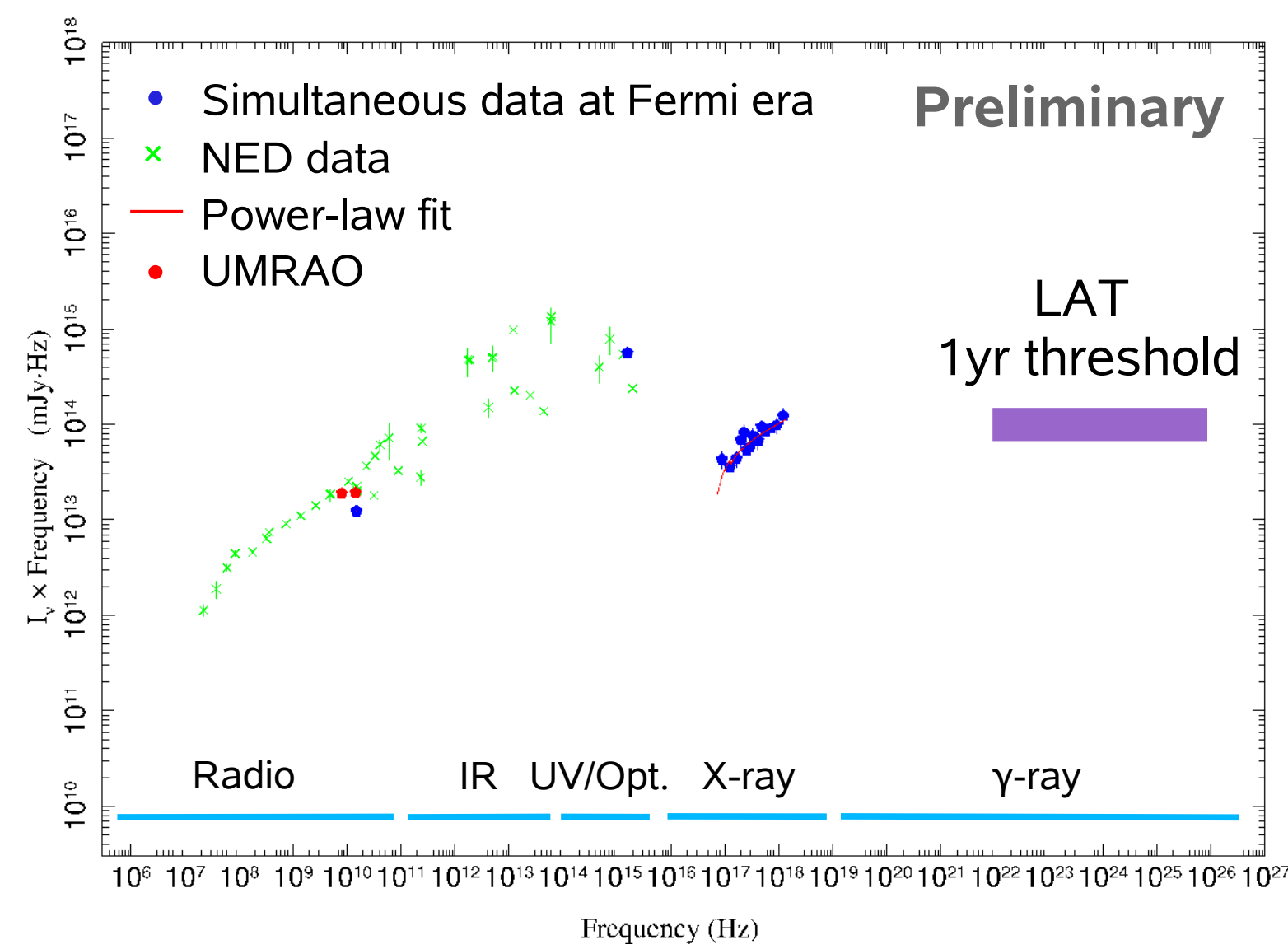
3C 309.1 (B1458+718)

Low polarization radio quasar

Redshift: 0.905

$\beta_{\text{app}} = 8.0 \pm 3.0$

Preliminary Fermi LAT year-1 source list: No



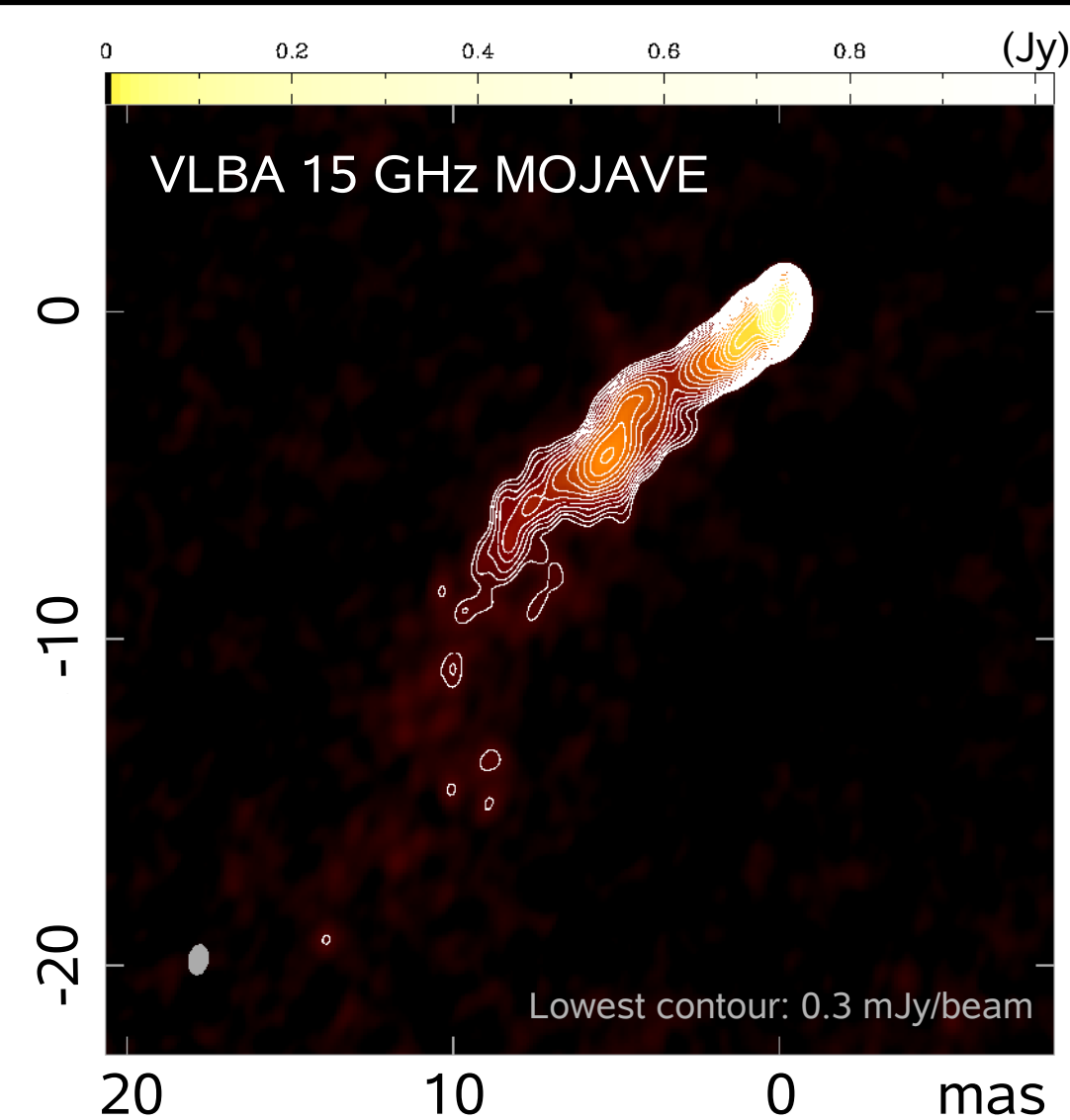
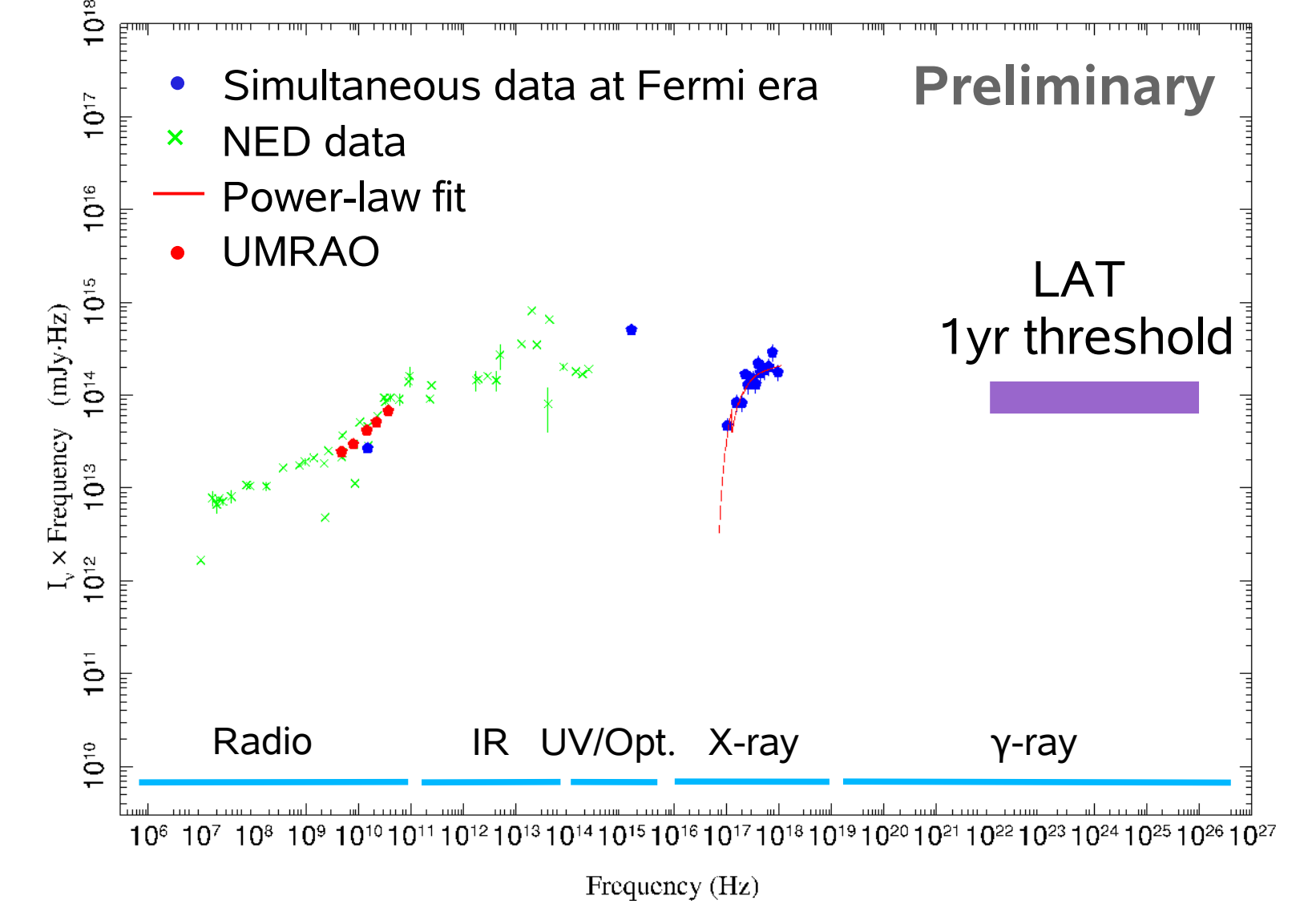
3C 380 (B1828+487)

Low polarization radio quasar

Redshift: 0.692

$\beta_{\text{app}} = 13.1 \pm 0.4$

Preliminary Fermi LAT year-1 source list: Yes



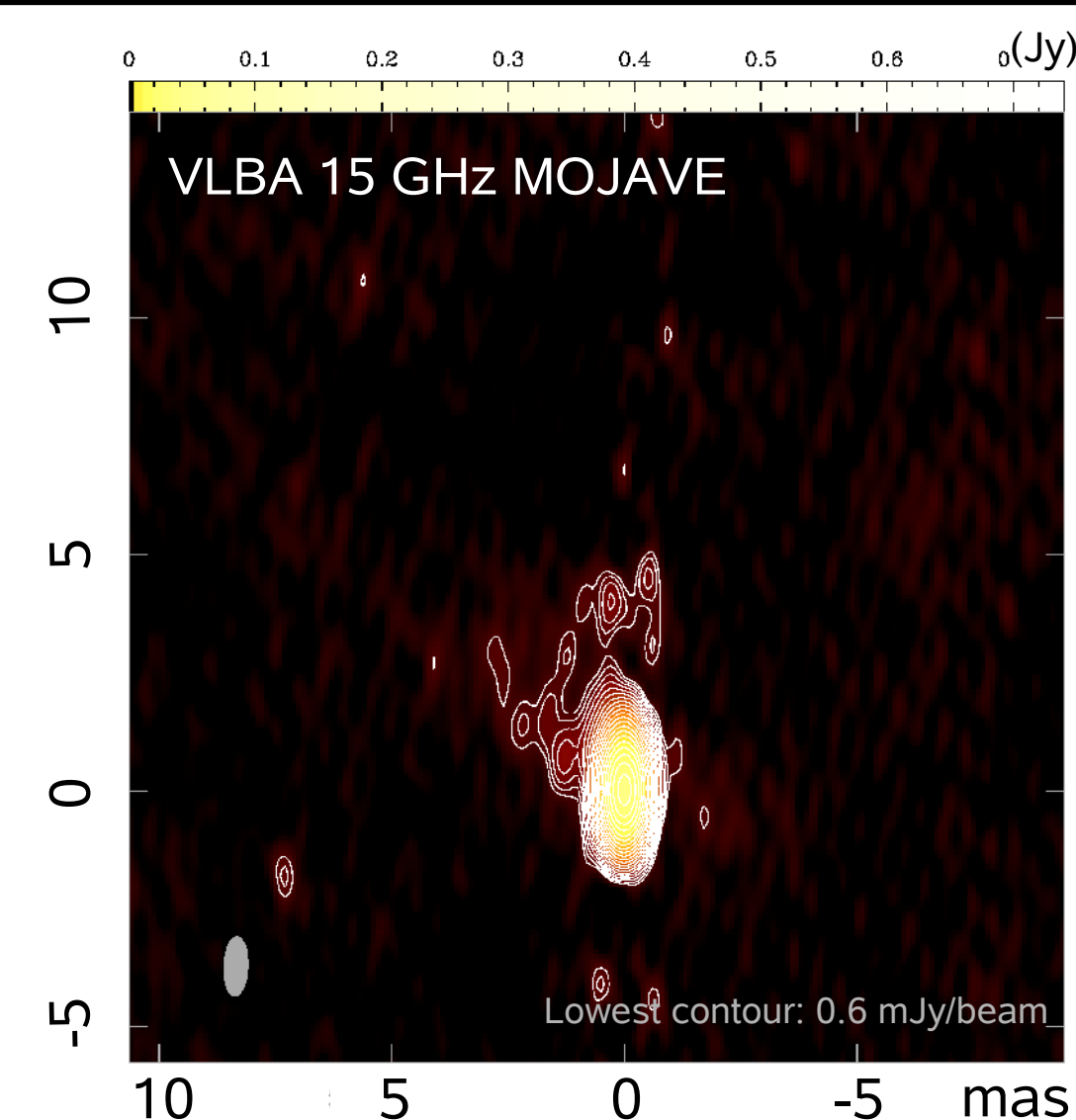
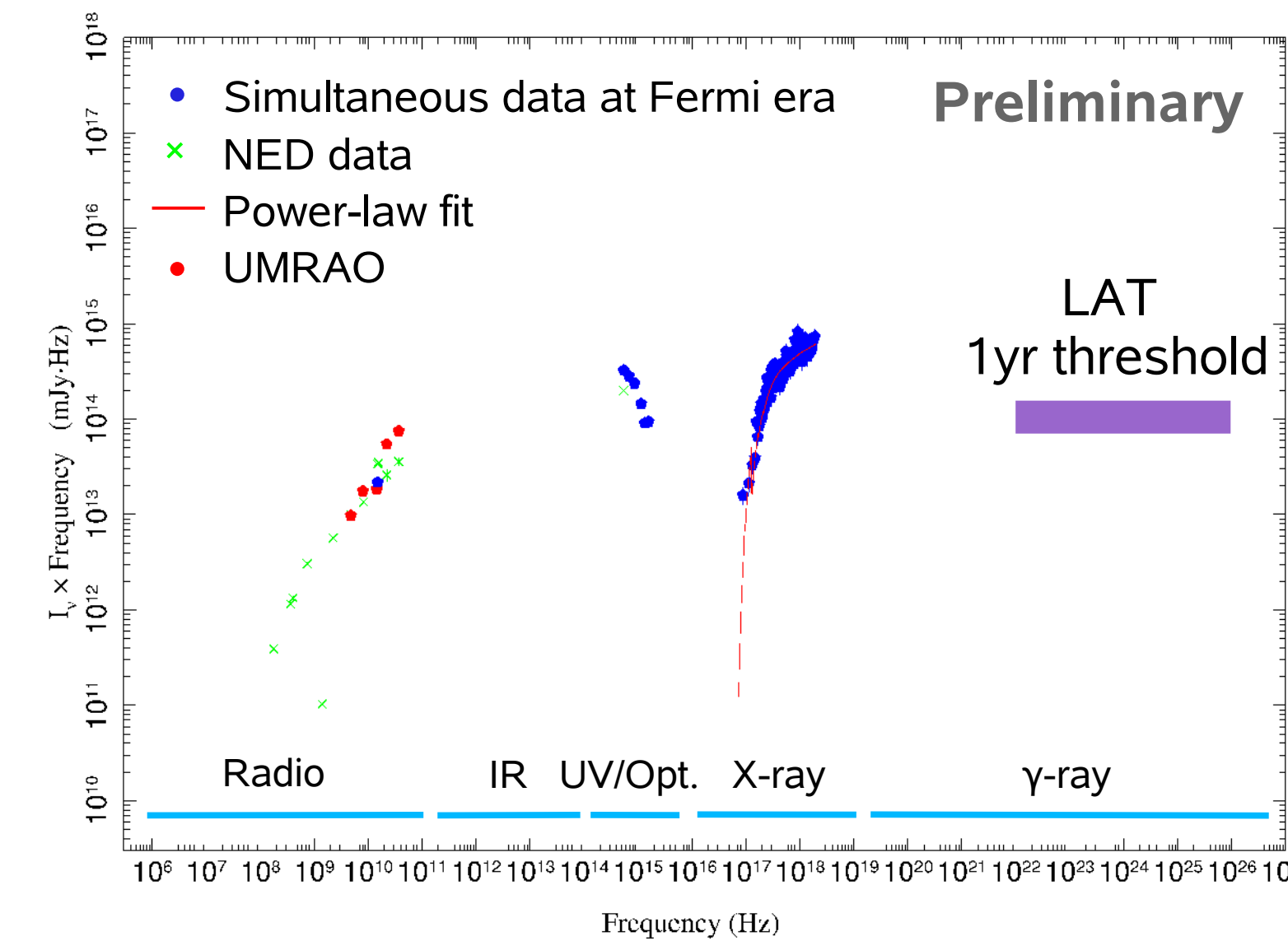
NRAO 140 (B0333+321)

Low polarization radio quasar

Redshift: 1.258

$\beta_{\text{app}} = 12.9 \pm 0.3$

Preliminary Fermi LAT year-1 source list: Yes



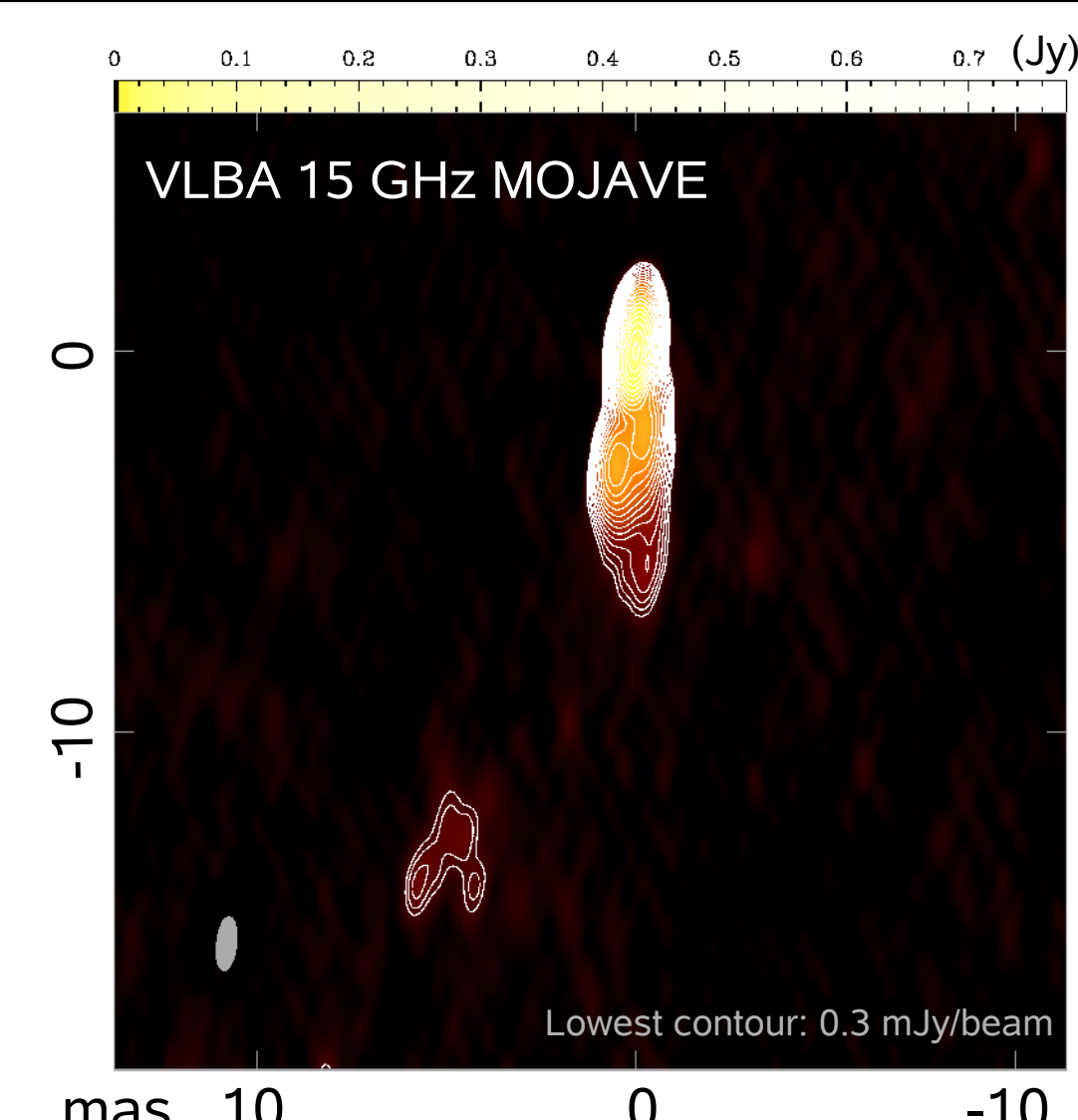
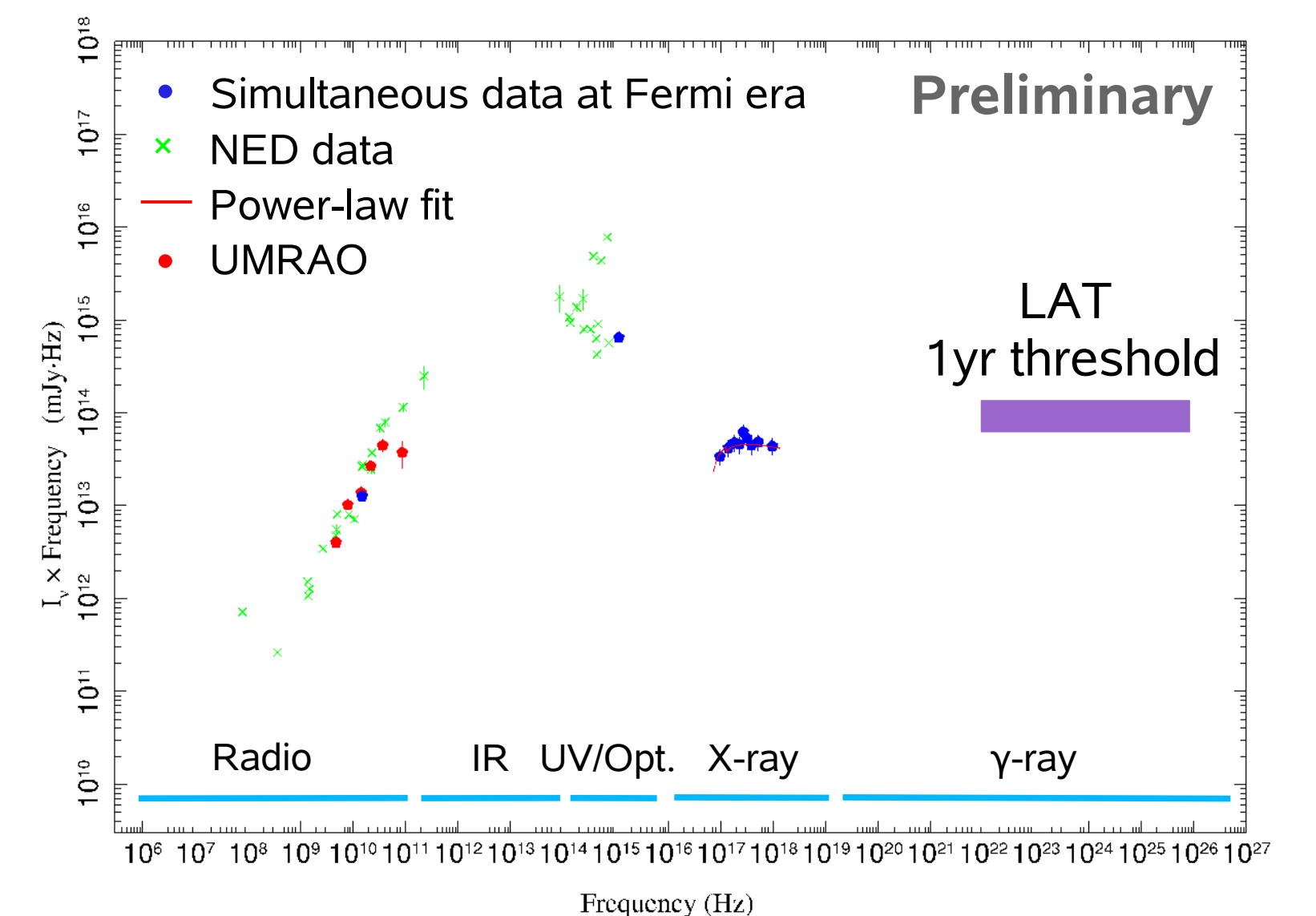
PKS B0422+004

BL Lac

Redshift: Not available

Proper motion: $0.38 \pm 0.08 \text{ mas yr}^{-1}$

Preliminary Fermi LAT year-1 source list: Yes



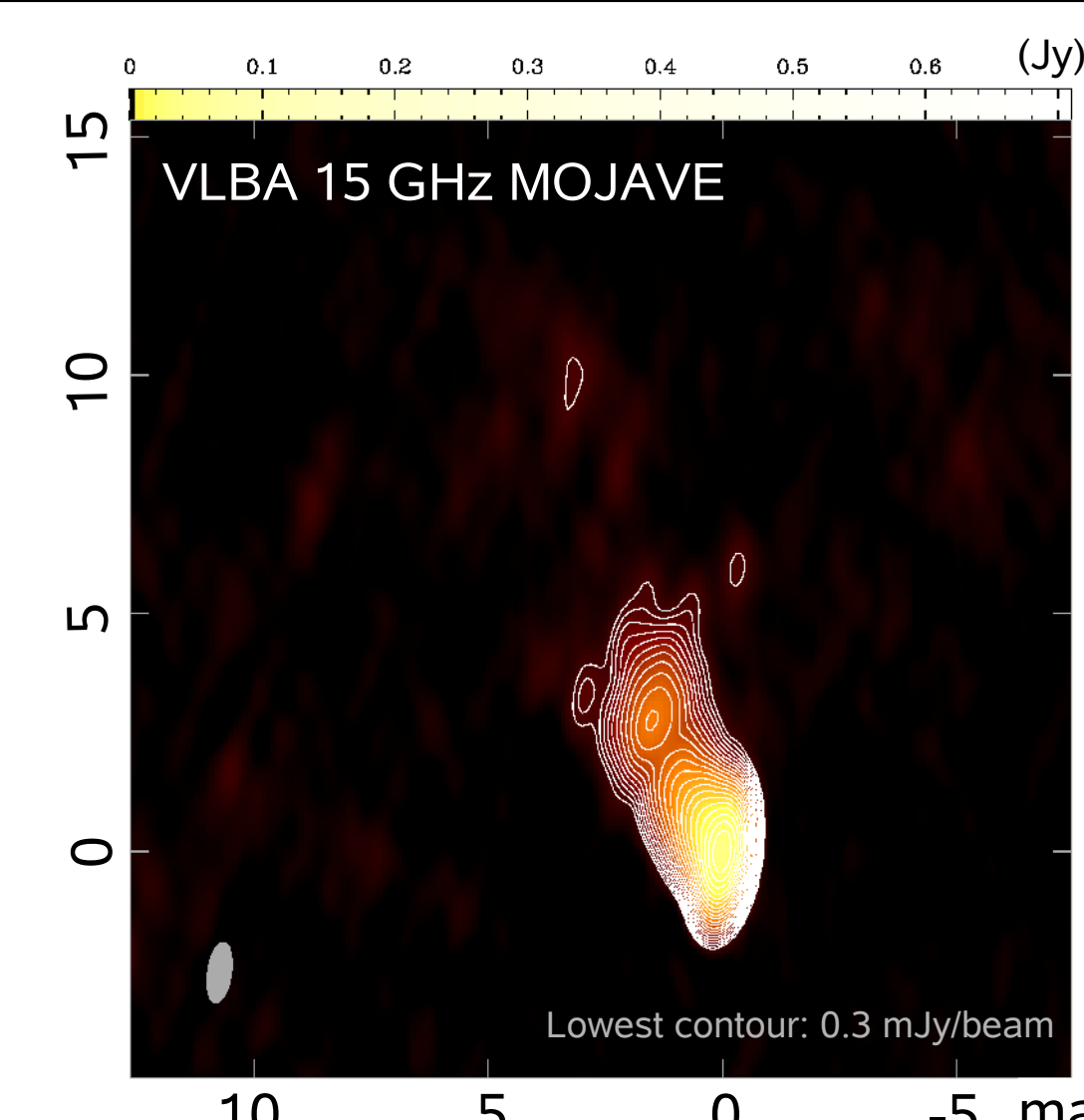
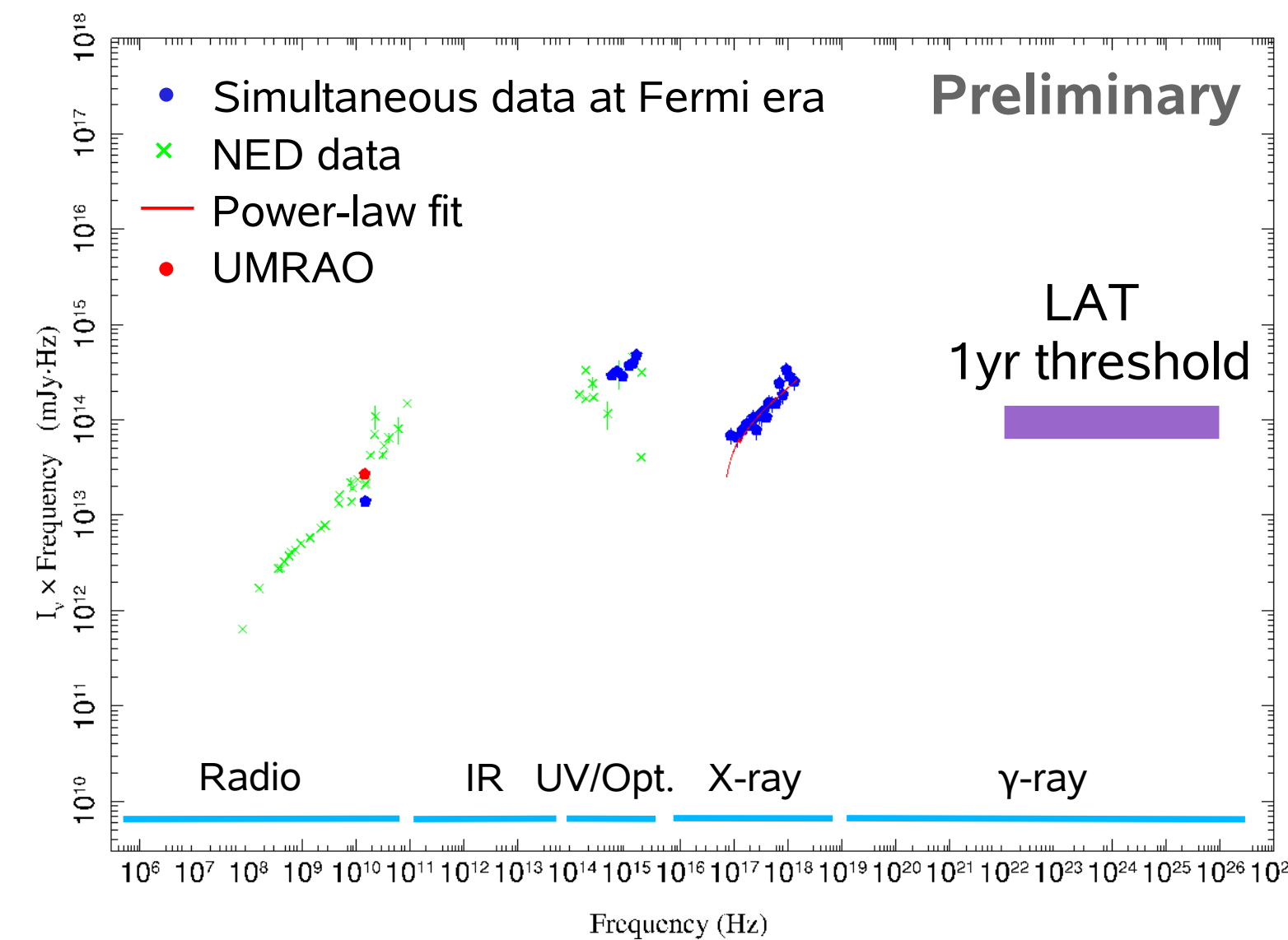
PKS 0403-13 (B0403-132)

High polarization radio quasar

Redshift: 0.571

$\beta_{\text{app}} = 21.0 \pm 1.0$

Preliminary Fermi LAT year-1 source list: Yes



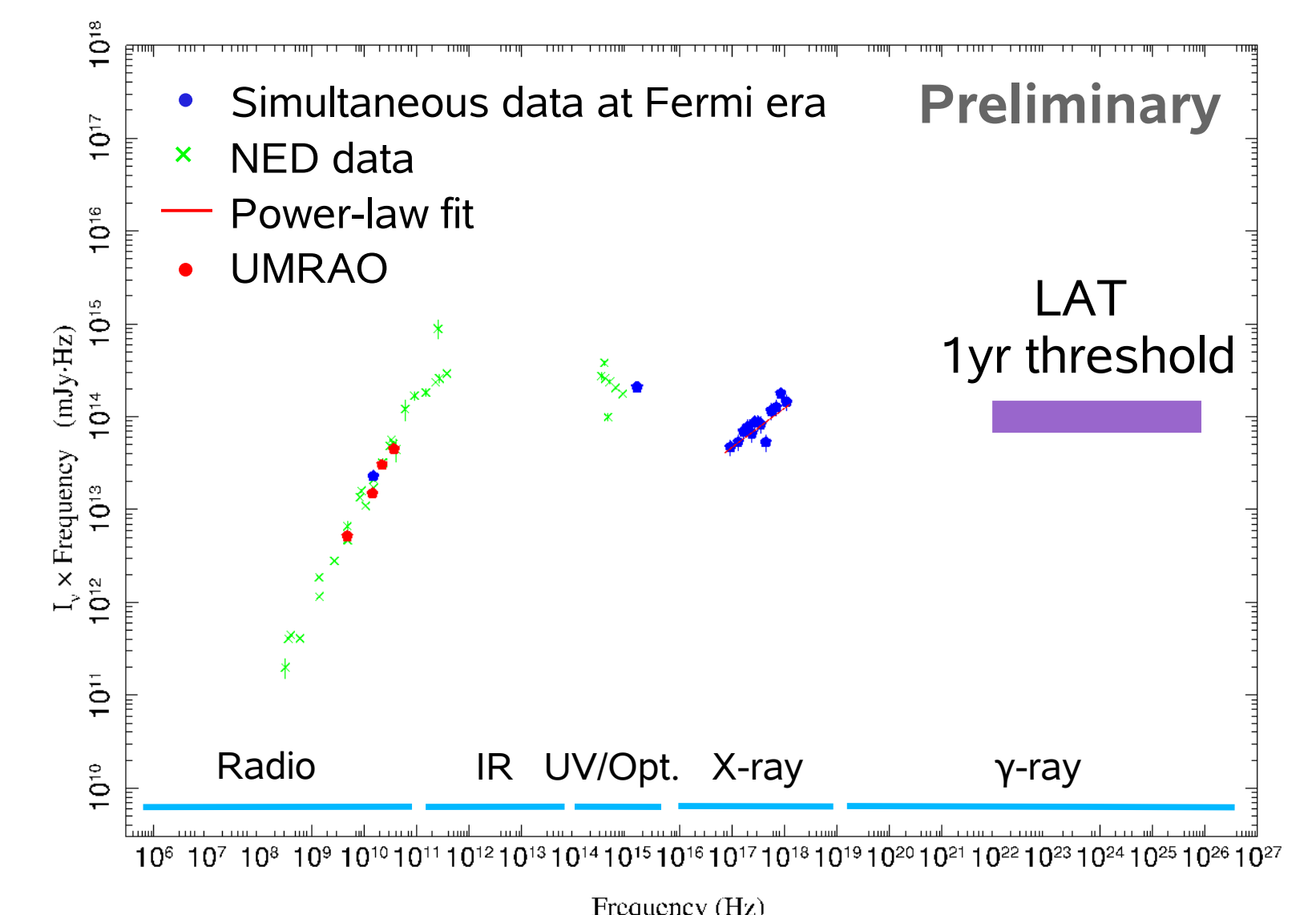
PKS 0823+033

BL Lac

Redshift: 0.506

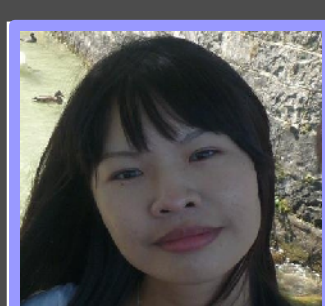
$\beta_{\text{app}} = 15.0 \pm 1.0$

Preliminary Fermi LAT year-1 source list: Yes



Panel description For each source, a radio image (left) from the VLBA at 15 GHz and the SED (right) are presented. The SED include a power-law fit to the X-ray emission. Fermi-LAT data are being processed to be included in the SED (the threshold is shown). After the catalog of SED data points is produced, the emission will be modelled and fitted.

Acknowledgements F-GAMMA data are produced by G. Nestoras and L. Fuhrmann. We thank especially C. Ricci, M. Böck, L. Barragan, and J. Wilms for valuable discussions. This research was supported by the EU Framework 6 Marie Curie Early Stage Training program under contract number MEST/CT/2005/19669 "ESTRELA". C. S. Chang is a member of the International Max Planck Research School for Astronomy and Astrophysics. This research has made use of data from the MOJAVE database that is maintained by the MOJAVE team (Lister et al., 2009, AJ, 137, 3718). The National Radio Astronomy Observatory is a facility of the National Science Foundation operated under cooperative agreement by Associated Universities, Inc. This research has made use of the NASA/IPAC Extragalactic Database (NED) which is operated by the Jet Propulsion Laboratory, California Institute of Technology, under contract with the National Aeronautics and Space Administration. This research has made use of data from the University of Michigan Radio Astronomy Observatory which has been supported by the University of Michigan and by a series of grants from the National Science Foundation, most recently AST-0607523.



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Please see the poster: [Kader et al. "γ-ray Properties of Extragalactic Jets from the MOJAVE Sample"](#) and additional posters of the MOJAVE collaboration members