

The Fermi LAT Very Important Project (VIP) List for Active Galactic Nuclei

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On behalf of the *Fermi* LAT Collaboration

Based on the first nine years of Fermi LAT observations, we have identified 30 projects for Active Galactic Nuclei (AGN) that appear to provide strong prospects for significant scientific advances. This Very Important Project (VIP) AGN list includes those AGNs that have good multiwavelength coverage, are regularly detected by the Fermi LAT, and offer scientifically interesting timing or spectral properties. Each project has one or more LAT scientists identified who are actively monitoring the source. They will be regularly updating the LAT results for these VIP AGNs, working together with multiwavelength observers and theorists to maximize the scientific return during the coming years of the Fermi mission.

4C +01.02	PKS 0521-36	Ton 599	PKS 1502+106	Mrk 501
GC 0109+224	S5 0716+71	3C273	PKS 1510-089	PKS 1830-211
B0218+357	PKS 0805-07	ON 246	PKS 1424-41	1ES 1959+650
AO 0235+164	S5 0836+71	M 87	B2 1520+31	CTA 102
NGC 1275	OJ 287	3C 279	PG 1553+113	3C 454.3
PKS 0454-234	Mrk 421	Cen A	3C 345	MAGNs



VIP AGN List – 1

Common Name	R.A.	Dec.	Class	Monitoring Programs	Leaders	Notes/Rationale
4C +01.02	17.180	1.579	FSRQ	Several	Richard Britto	
GC 0109+224	18.024	22.744	BL Lac	Some	Stefano Ciprini	
B0218+357	35.273	35.937	Lensed blazar	OVRO, Metsahovi	Teddy Cheung Sara Buson	TeV detection, lensed
AO 0235+164	39.662	16.616	BL Lac	Many	Silvio Raino' Bindu Rani	
NGC 1275	49.951	41.512	Radio galaxy	Many	Teddy Cheung Jun Kataoka	TeV
PKS 0454-234	74.263	-23.414	FSRQ	Some	Dario Gasparrini	Detected almost every day
PKS 0521-36	80.741	-36.458	SSRQ/ BLRG	TANAMI, others	Filippo D'Ammando	
S5 0716+71	110.473	71.343	BL Lac	Many	Bindu Rani	TeV, LAT bright, variable, well-monitored
PKS 0805-07	122.065	-7.853	FSRQ	Several	Stefano Ciprini	
S5 0836+71	130.352	70.895	FSRQ	Many	Monica Orienti Dave Thompson	z>2, flaring activity

VIP AGN List - 2

Common Name	R.A.	Dec.	Class	Monitoring Programs	Leaders	Notes/Rationale
OJ 287	133.704	20.109	BL Lac	Many	Stefano Ciprini Elizabeth Ferrara Bindu Rani	
Mrk 421	166.114	38.209	BL Lac	Many	David Paneque	
Ton 599	179.883	29.246	FSRQ	Many	Stefano Ciprini Dave Thompson	
3C 273	187.278	2.052	FSRQ	Many	Richard Britto	
ON 246	187.559	25.302	FSRQ		Sara Buson	
M 87	187.706	12.391	Radio galaxy	Many	Teddy Cheung Marcello Giroletti	MWL monitoring
3C279	194.047	-5.789	FSRQ	Many	Greg Madjeski Masaaki Hayashida	TeV, fast variability
Cen A	201.365	-43.019	Radio galaxy	TANAMI, SMA	Jeff Magill Roopesh Ojha	Nearby, spatially extended
PKS 1502+106	226.365	-43.019	FSRQ	Radio, Catalina, ROBOPOL	Stefano Ciprini	

VIP AGN List - 3

Common Name	R.A.	Dec.	Class	Monitoring Programs	Leaders	Notes/Rationale
PKS 1510-089	228.170	-8.830	FSRQ	Many	Monica Orienti Filippo D'Ammando Dario Gasparrini	TeV, highly variabile
PKS 1424-41	228.768	-25.953	FSRQ	TANAMI, many others	Sara Buson Roopesh Ojha	Bright flares, PeV neutrino coincidence
B2 1520+31	230.542	31.737	FSRQ	Many	Dario Gasparrini	Detected almost daily
PG 1553+113	238.929	11.190	BL Lac	Many	Sara Cutini Stefano Ciprini	Possible periodicity
3C 345	250.745	39.810	FSRQ	VLBA, others	Frank Schinzel Sara Buson	At least two active periods
Mrk 501	253.468	39.760	BL Lac	Many	David Paneque	Long-term campaign
PKS 1830-211	278.416	-21.061	FSRQ	SMA	Stefano Ciprini Sara Buson	Lensed
1ES 1959+650	299.999	65.149	BL Lac		Sara Buson	Active at TeV energies
CTA 102	338.152	11.731	FSRQ	Many	Filippo D'Ammando	Large flares, MW correlation
3C 454.3	343.491	16.148	FSRQ	Many	Benoit Lott	Biggest flares