

An artistic rendering of an active galactic nucleus (AGN). At the bottom center, a black hole is depicted as a dark sphere, surrounded by a glowing, multi-colored accretion disk (proplyd disk) that transitions from yellow and orange near the horizon to blue and white at the outer edges. Two powerful jets of high-speed particles and radiation emerge from the poles of the black hole, extending upwards and outwards into the dark, star-filled space. The background shows a distant galaxy with a prominent spiral arm.

Active Galactic Nucleus

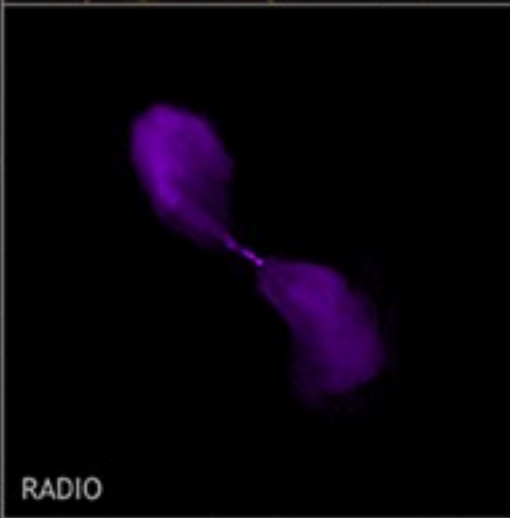
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Γ -Astronomy Group

What is an AGN?



X-RAY



RADIO



OPTICAL

COMPOSITE



emits non-thermal radiation

$\sim 10^9 M_{\odot}$ SMBH at its center

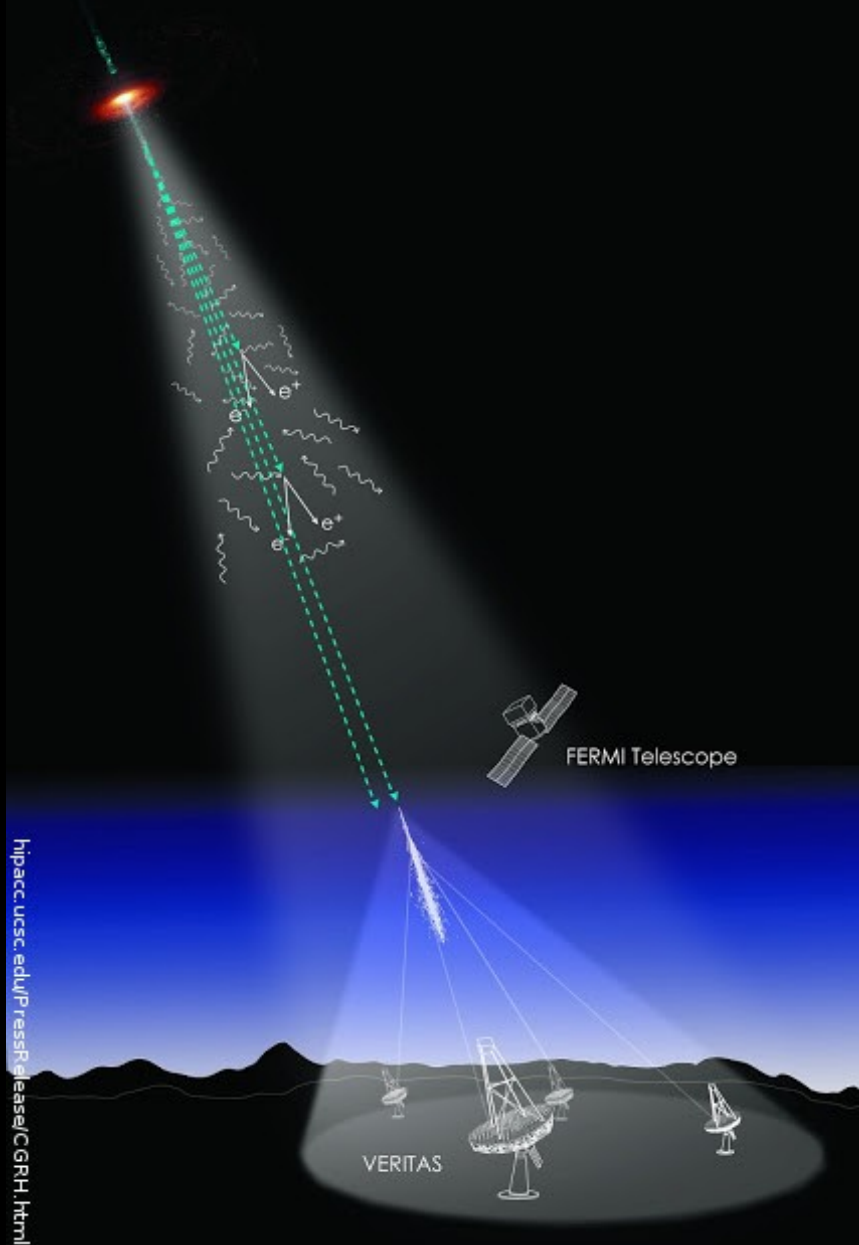
outshines its host galaxy

\sim Glyrs away

\sim klyrs long relativistic jets can be produced

AGNs are variable at all wavelengths

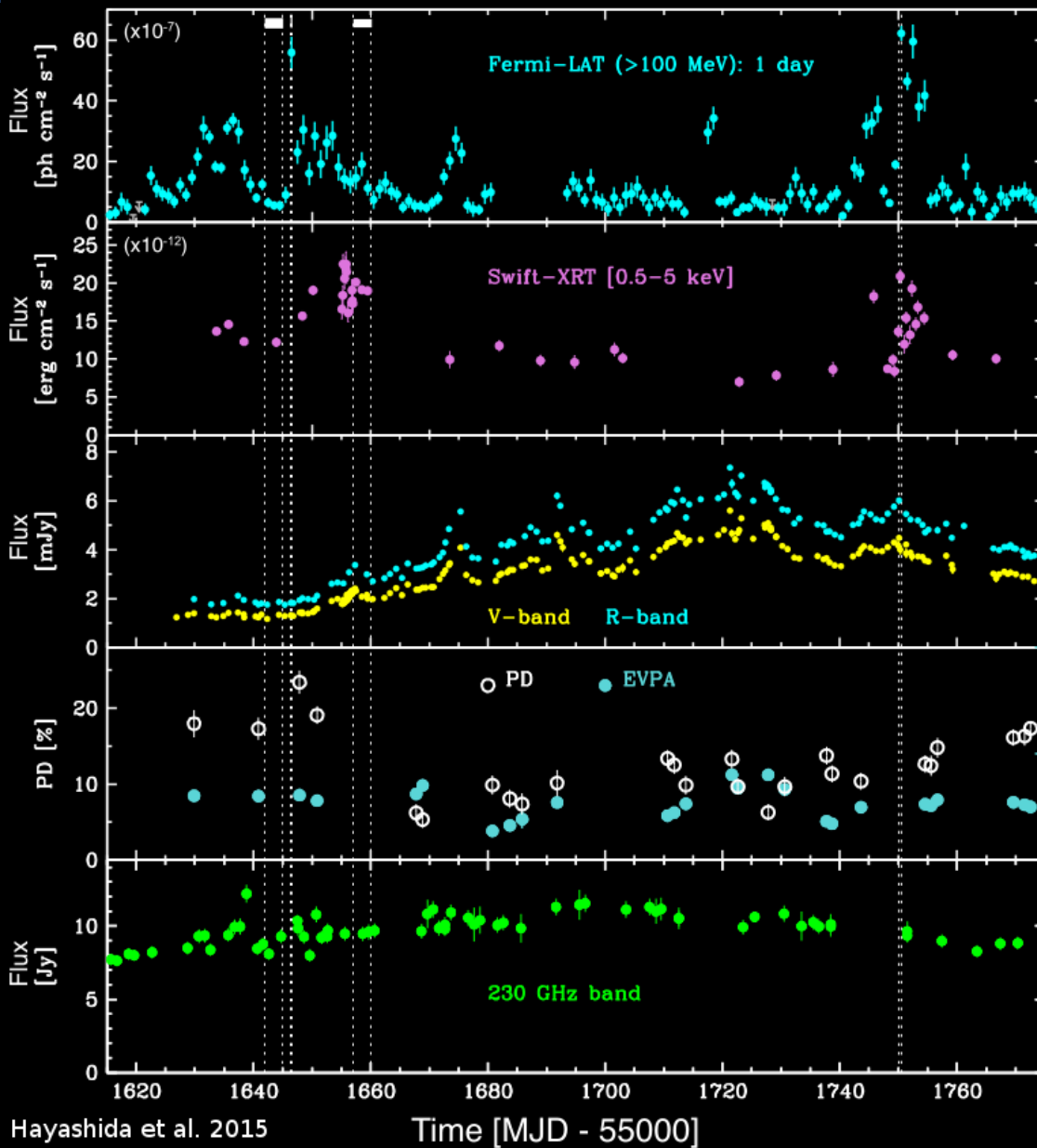
Current detectors we work with:



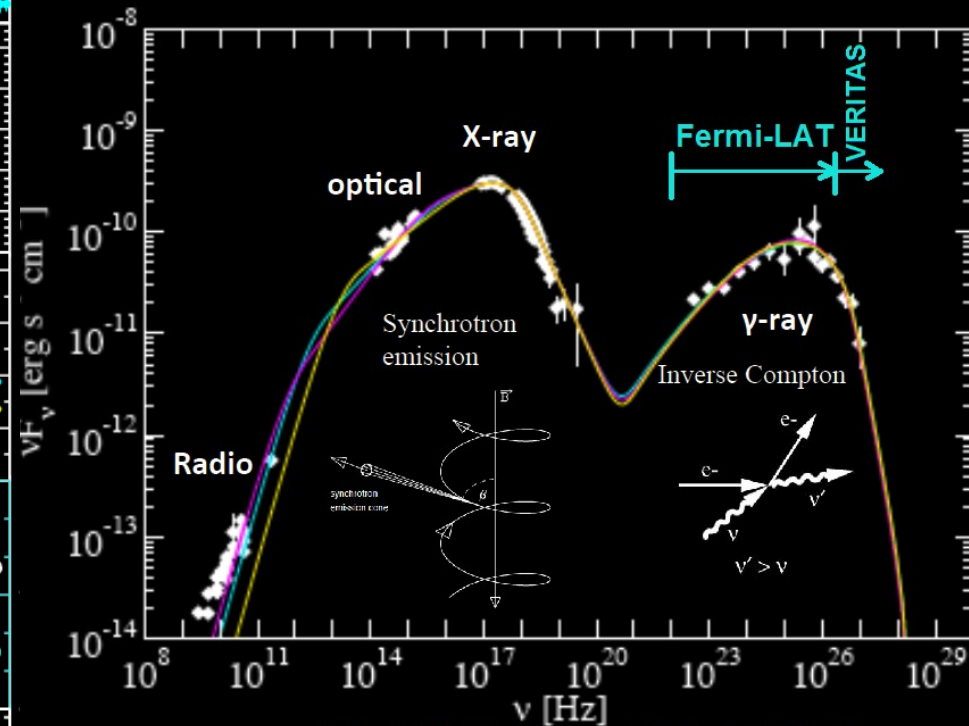
Future projects will involve:



The Physics we study



Hayashida et al. 2015



SED of Mrk 421 (Abdo et al. 2011, ApJ, 736, 131)

Merci!