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Neutrino fluence from X-ray flares of blazars frequently observed by Swift

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The case of TXS 0506+056

Motivation

- > Lack of γ-ray activity in 2014–2015
- Theoretical studies

Data

- Lightcurves at 1keV band of 66 Blazars
- SEDs of 66 Blazars





Image credit: NASA / DOE / Fermi LAT Collaboration.





Length of measurements

Asynchronous data

Approaching the problem (Bayesian Blocks)

Swift-XRT Lightcurves at 1 keV









Mean(μ)+Standard Deviation(σ)+Bayesian Blocks

Classification



Distribution of Duration

Swift-XRT Lightcurves at 1 keV



The Neutrino "rich" scenario

Hadronic flares











- Identify "orphan" X-ray flares
- Compute expected number of events for each flare using IceCube effective areas.
- Perform self-consistent spectral modeling of "interesting" X-ray flares

Thank you! Questions?