

## Investigation of Power Spectral Density Indices in Simulations of Stochastic Long-term Variability in Leptonic Models

Contributed Talk //

Active Galactic Nuclei (AGNs)



Hannes Thiersen // North-West University (NWU)

> Session 8 // Friday, 8 September @ 12:10 SAST

This work presents the connection in power spectral density (PSD) indices found between simulated leptonic multi-wavelength blazar variability and the stochastic variations used to produce it. Variations for power law spectra of multiple indices and varying parameters were tested. The simulated multi-wavelength results' PSD spectra contained no breaks related to cooling time scales of leptonic radiation processes. Additionally the results show all tested indices were reduced to a power law with a single index across all considered wavelengths. Stochastic variations using broken power law spectra were also tested and yielded similar results.

## ADDITIONAL AUTHORS

Initials	Surname	Affiliation
M.	Bottcher	North-West University

Sponsored by the Department of Science and Innovation (DSI) and the National Research Foundation (NRF) through the South African Gamma-Ray Astronomy Programme (SA-GAMMA)

