Contribution ID: **9** Type: **not specified**

Acceleration and Cooling Processes in Outburst Phase of the TeV Blazar W Com

Tuesday, 2 March 2021 09:30 (30 minutes)

Curved broad-band spectral distributions of non-thermal sources like blazars are described well by a log-parabolic law where the spectra can be obtained for relativistic electrons by means of a statistical acceleration mechanism whose probability of acceleration depends on energy. In this work we used the curvature parameter of the synchrotron spectra (b) and the peak energy (Ep) to investigate the acceleration and cooling mechanism during outburst phase of the TeV blazar W com. We carried out a detailed time-resolved temporal and spectral study using multi-wavelength data taken by *Swift* and *XMM-Newton* satellites. Similar spectral variation of the main two emission components supports the SSC scenario. During the event, the source showed a significantly positive Ep-b relation, which, incorporating previous theoretical predictions, likely be associated with a magnetic field-driven stochastic process in the jet.

Primary author: Dr KALITA, Nibedita (SHAO)

Presenter: Dr KALITA, Nibedita (SHAO)