



Contribution ID: 111

Type: **Talk**

## An Introduction to Extreme Blazars

*Tuesday, 22 January 2019 11:50 (40 minutes)*

Extreme blazars are characterized by the highest SED peak energies of the whole blazar population, either by synchrotron or inverse Compton emission (if it is inverse Compton at all), or both. Their peak energies surprised us reaching values up to or beyond 100 keV and 10 TeV, respectively, more than 2 orders of magnitude higher than run-of-the-mill HBLs. Over the past decade, observations with Cherenkov telescopes have revealed several of these objects, with hard VHE spectra. Although they allowed crucial limits to be derived for the EBL and intergalactic magnetic fields, their SED is still difficult to explain with standard scenarios. The origin of their gamma-ray emission remains elusive, but possibly indicative of different physical processes. With hindsight, I review what we know so far about this challenging type of blazars, in particular how they came to be recognized, their look and behaviour, why they are problematic and, last but not least, how to find them.

### Are you presenting on behalf of collaborations or institutions?

no

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