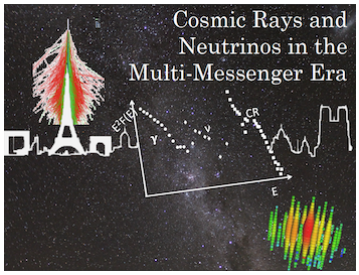

ID de Contribution: **58** Type: **Poster**

The Blazar Hadronic Code Comparison Project

Blazar hadronic models have been developed in the past decades as an alternative to leptonic ones. In hadronic models the gamma-ray emission is associated with synchrotron emission by protons, and/or secondary leptons produced in proton-photon interactions. Together with photons, hadronic emission models predict the emission of neutrinos that are therefore the smoking gun for acceleration of relativistic hadrons in blazar jets. The simulation of proton-photon interactions and all associated radiative processes is a complex numerical task, and different approaches to the problem have been adopted in the literature. So far, no systematic comparison between the different codes has been performed, preventing a clear understanding of the underlying uncertainties in the numerical simulations. To fill this gap, we have undertaken the first comprehensive comparison of blazar hadronic codes, and the first results from this effort will be presented in this contribution.

Related session

Multi-messenger

Auteurs principaux: CERRUTI, Matteo (Institut de Ciències del Cosmos - Universitat de Barcelona); KRETER, Michael (North-West University, South Africa); PETROPOULOU, Maria (Purdue University); RUDOLPH, Annika (DESY); OIKONOMOU, Foteini (ESO); BÖTTCHER, Markus (Centre for Space Research, North-West University Potchefstroom Campus); DIMITRAKOUDIS, Stavros (Alberta University); DMYTRIIEV , Anton (OBSPM); GAO, Shan (DESY); INOUE, Susumu (RIKEN); MASTICHIADIS, Apostolos (University of Athens); MURASE, Kohta (Penn State University); REIMER, Anita (University of Innsbruck); RODRIGUES, Xavier (DESY); ZECH, Andreas (LUTH - Observatoire de Paris)