



Contribution ID: 376

Type: Oral Presentation

Constraining star formation history with Fermi-LAT observations of the gamma-ray opacity of the Universe

Wednesday, 27 June 2018 10:00 (20 minutes)

The star formation history (SFH) of the Universe is of fundamental importance to cosmology, not only to galaxy formation itself, but also for ongoing efforts to determine cosmological parameters and matter content of the universe. Measurement of the extragalactic background light (EBL) as a function of redshift can constrain models of the SFH, including the initial mass function (IMF) and dust extinction. The gamma-ray spectra of AGN allow us to study the extragalactic background light (EBL) through absorption of high-energy photons. In this work, we present constraints on models of SFH using a sample of AGN observed by the Fermi-LAT instrument by investigating the imprint of the EBL on the observed spectra of high-redshift Fermi-LAT AGN above ~ 10 GeV.

Please confirm that you have carefully read the abstract submission instructions under the menu item "Call for Abstracts" (Yes / No)

Yes

Consideration for student awards: Choose one option from those below.
N/A
Hons
MSc
PhD

MSc

Supervisor details: If not a student, type N/A. Student abstract submission requires supervisor permission: please give their name, institution and email address.

Prof. Andrew Chen
andrew.chen@wits.ac.za

Primary author: Ms LE RAY, Ashlynn (University of the Witwaterstrand)

Co-author: Prof. CHEN, Andrew (University of the Witwaterstrand)

Presenter: Ms LE RAY, Ashlynn (University of the Witwaterstrand)

Session Classification: Astrophysics

Track Classification: Track D1 - Astrophysics