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Sesion Cientifica: La Vía Láctea y sus componentes

Titulo: Catalogue of UV sources in the Galaxy

Nombre (autor que presenta): Leire

Apellidos (autor que presenta): Beitia Antero

Apellidos y nombre de los autores: Beitia Antero, Leire y Gómez de Castro, Ana Inés

Resumen:

The Galactic Evolution Explorer (GALEX) has produced the largest photometric catalogue of ultraviolet (UV) sources. As such, it has defined the new standard bands for UV photometry: the near UV band (NUV) and the far UV band (FUV). However, due to brightness limits, the GALEX mission has avoided the Galactic plane which is crucial for astrophysical research and future space missions.

The International Ultraviolet Explorer (IUE) satellite obtained 63,755 spectra in the low dispersion mode (resolution $\sim 6 \text{ \AA}$) with good photometric quality during its 18 years lifetime. We have derived the photometry in the GALEX bands for all the stellar sources in the IUE Archive to extend the GALEX data base with observations including the Galactic plane.

Good quality spectra have been selected for all IUE classes of stellar sources. The GALEX FUV and NUV magnitudes have been computed using the GALEX transmission curves, as well as the conversion equations between flux and magnitudes provided by the mission (galexgi.gsfc.nasa.gov).

Consistency between GALEX and IUE synthetic photometries has been tested using White Dwarfs (WD) contained in both samples. The saturation limit of GALEX photometry (NUV lim $\sim 13\text{mag}$, FUV lim $< 12\text{mag}$) is found to be in good agreement with previous works.

The photometric data base is made available to the community through the services of the Centre de Données Stellaires at Strasbourg (CDS). The catalogue contains FUV magnitudes for 1,795 sources, ranging from FUV= 1.8 to FUV=21.4 mag, based on 5,127 observations obtained with the IUE. In the NUV band, the catalogue includes observations for 1,156 stars ranging from NUV = 3.1 to NUV= 18.3 mag based on 10,195 observations.