

Modeling the Dust in our Galaxy based on GALEX Observations

Jayant Murthy¹

¹Indian Institute of Astrophysics, Bangalore, India

Murthy (2014) has published maps of the diffuse UV radiation over the entire sky in which both the general Galactic radiation, distinguished by a cosecant law dropoff from the Galactic Plane, and small scale features associated with individual stars is seen. This radiation has canonically been assumed to be due to stellar photons from early-type (O and B) stars scattered by interstellar dust. There are very few O and B stars in the sky and catalog integrations have proved to be successful in predicting the interstellar radiation field. The dust has been more problematic as its exact location with respect to the stars can make a big difference in the level of scattered light.

I will discuss my Monte Carlo model for diffuse scattering in the Galaxy and how well it fits the data. There have been several suggestions recently that scattering from interstellar dust cannot fit the entire observed background and I will examine this hypothesis also.