

# Comparison of the Diffuse Mid-IR and FUV emission in the Large Magellanic Cloud

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Dust scattering is the main source of diffuse emission in the FUV. For several locations in the LMC, *UIT* and *FUSE* satellites observed diffuse radiation with intensities ranging from 1000 -  $3 \times 10^5$  photon units and diffuse fraction between 5% - 20% at 1100 Å. Here, we compare this FUV diffuse emission with the Mid-IR diffuse emission observed by the Spitzer satellite for the same locations. The relative intensities in the different Mid-IR bands for each of the locations will enable us to determine the type of dust contributing to the diffuse emission as well as to derive a more accurate 3D distribution of stars and dust in the region, which in turn can be used to model the observed scattering in the FUV.