

## Ultraviolet Study of the unusually high spectral index regions in the Planck HFI maps

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In this work, we present a study of regions near the Galactic plane with extreme spectral index,  $\beta \approx 8-9$ , which was calculated using PLANCK temperature maps for frequency bands at 143, 217 and 353 GHz. Usually, the radiation from Galactic plane regions in these frequency ranges is dominated by thermal dust emission with typical spectral index  $\beta \approx 1-2$ . It is rather challenging to study such a large region at this sub-mm frequencies with a high-frequency radio survey. Therefore, Ultraviolet (FUV and NUV) observational data are used as the UV is a signpost of Star formation regions. The radiation of UV in the extreme spectral index regions higher than UV radiation in normal spectral index regions.

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