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# Galactic diffuse gamma rays from galactic plane

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**Abstract.** The dominant part of the diffuse gamma rays from the Galactic plane, with energy greater than 1TeV, has been thought as due to the inverse Compton scattering of the interstellar photons with the high-energy cosmic electrons. In these energy regions, the diffuse gamma-ray observation gives us unique infor-mation on the energy spectrum of the high-energy electrons in the interstellar space, since we cannot observe those electrons directly. This provides us information on the cosmicray source, production mechanism and propagation in the Galaxy. We discuss the implication of our results by comparing with the work of Porter and Protheroe, and also compare with the data observed by the most recent extensive air showers.

It is also pointed out that the patchy structure of gamma-ray distribution will appear at high-energy side, if we observe the distribution with a higher angular resolution of a few arc degrees. This patchy structure will become clear beyond 10TeV of IC gamma rays, where the number of contributing sources of parent decrease and the diffusion distance of the electrons become smaller.