Vulcano Workshop 2014 - Frontier Objects in Astrophysics and Particle Physics



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Correlation analysis between sky maps of Tibet cosmic rays and microwave observed with WMAP and Planck

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In this talk, I will present our recent work of correlation analysis between the sky maps of cosmic rays observed from Tibet and microwave observed from WMAP and Planck. We find that sky maps of cosmic rays observed from Tibet are strongly and positively correlated with the foreground unreduced microwave sky maps of WMAP and Planck, consistent with the Galactic origin of the Tibet cosmic rays. Significant negative correlations are also found in some areas of the sky between cosmic ray maps and the foreground reduced microwave sky maps of WMAP and Planck, suggesting that the foreground reduced microwave sky maps might include some unreduced foreground contaminations.

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