

## **A SEARCH FOR THE GLOBAL COSMIC STRING**

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Cosmic string is predicted by the elementary particle theory and the cosmology. It is also a good candidate for the origin of the extremely high energy cosmic rays. We searched for the cosmic string using SDSS (sloan digital sky survey) data. We expect that characteristic double images of galaxy are made along the cosmic strings due to its gravity. However, we could not detect any signature of global cosmic string. We obtained the upper limit for the number of global cosmic string in GZK horizon,  $N < 0.4$ , with 99% confidence level.