

Evolution of Field Structure and Energy in a Solar Flare

TANIMOTO, Hiroshi^{1*}

¹Research Center for Space and Cosmic Evolution of Ehime University

Solar activity, such as solar flare, closely relate to geo-magnetosphere. Therefore, the prediction of solar flare is important to the forecast of the space weather. Then, at first, we have to understand the evolution of field structure before and after the solar flare.

Solar Optical Telescope (SOT) on the Hinode satellite has provided us the high resolution magnetic field vector data on the photosphere. In this study, we extrapolate the three dimensional coronal magnetic field from these observed data using magnetofrictional method, and investigate the evolution of field structure and free energy before and after the solar flare.

Keywords: Reconnection