

# Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



PEM029-08

会場:203

時間:5月24日 16:00-16:15

## 太陽高エネルギー粒子の最高エネルギー Maximum Energy of Solar Energetic Particles

天野 孝伸<sup>1\*</sup>, 片岡 龍峰<sup>2</sup>

Takanobu Amano<sup>1\*</sup>, Ryuho Kataoka<sup>2</sup>

<sup>1</sup>名大・理, <sup>2</sup>東京工業大学

<sup>1</sup>Dept. Phys., Nagoya Univ., <sup>2</sup>Tokyo Institute of Technology

The standard diffusive shock acceleration (DSA) model is often invoked for the mechanism accelerating energetic particles around collisionless shocks. We will discuss the maximum attainable energy for solar energetic particles in the context of shock acceleration theory. While the maximum energy can easily be estimated by DSA in the most simplified (i.e., ideal) condition, there are number of effects (e.g., time-dependence, geometry, nonlinear effects, anomalous diffusion) which may alter the acceleration efficiency. In this report, we discuss these effects in the context of solar energetic particle acceleration around strong shocks propagating in the inner heliosphere.

キーワード: 無衝突衝撃波, 粒子加速, 太陽高エネルギー粒子

Keywords: collisionless shock, particle acceleration, solar energetic particles