

# Japan Geoscience Union Meeting 2011

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

©2011. Japan Geoscience Union. All Rights Reserved.



SSS029-06

会場:104

時間:5月23日 09:45-10:00

## 大きな破壊への準備過程：数値実験にもとづく考察 Mechanical processes of preparation for large scale events

堀 高峰<sup>1\*</sup>, 阪口 秀<sup>1</sup>  
Takane Hori<sup>1\*</sup>, Hide Sakaguchi<sup>1</sup>

<sup>1</sup> 海洋研究開発機構  
<sup>1</sup> JAMSTEC

In order to forecast the occurrence of large events in the Earth's crust, we need to understand their preparation process. Although some precursory phenomena have been proposed as preparation processes for large events, most of their mechanical background is not clear. To understand the mechanical processes before large scale events, we examine numerical experiments in which multi-scale events spontaneously occur. The results show that before the occurrence of a large event, the deviation of the differential stress becomes small in a surrounding area of the large event. This represents a kind of homogenization of the stress field before a large event. After the large event, the stress distribution becomes scattered where only small events can occur.