

SEM031-02

Room: 301B

Time: May 26 15:45-16:00

## Variations of geoelectric field associated with anomalous volumetric strain changes in Tokai area

Yoshiaki Orihara<sup>1\*</sup>, Masashi Kamogawa<sup>2</sup>, Toshiyasu Nagao<sup>1</sup>, Seiya Uyeda<sup>3</sup>

<sup>1</sup>EQ Prediction Res. Center, Tokai Univ., <sup>2</sup>Dpt. of Phys., Tokyo Gakugei Univ., <sup>3</sup>Japan Academy

Anomalous expansion recorded by a volumetric strain-meter in Shimizu, Japan (35.1016N, 138.5102E) appeared on October 11, 1998 (Yamazato, 1999). Although this anomaly was observed only in one station, Japan Meteorological Agency (JMA) paid attention to the anomaly which may be related to a pre-slip of Tokai earthquake. Since the anomaly almost disappeared on October 14, it was concluded the anomaly locally occurred around the observation station (Yamazato, 1999). At the same period, we operated geoelectric potential observation with 7 long-dipoles located with 3 km distance from the strain-meter. After a reduction of daily variation from geoelectric potential data by Principal Component Analysis (PCA), we found simultaneous variation of geoelectric field and strain in the second principal component.

Keywords: Geoelectric potential difference, Strain change, Electro-kinetic potential