

---

SEM031-P08

Room: Convention Hall

Time: May 26 17:15-18:45

## Tidal-induced geo-electrical potential variation observed in isolated island

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

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

We investigate tidal-induced geo-electric potential variations observed in isolated island. From the spectrum analysis of the observed geo-electric potential difference, tidal components such as M2, K1, S2, O1, and N2 are clearly shown with magnetic induction components such as S1, S2, and S3. Since ocean fluid motion induces the electric potential, we constructed a geo-electric potential model which involves the components of differential of tidal variation and the geo-magnetic induction. Our model could reproduce the variations of the geo-electric potential difference.

Keywords: Goelectric potential difference, Tide, Induction current