

Inversion Software and Method for Transient-Electromagnetic Data Comparison Using ZONDEM1D  
and Simpeg: Northern Part of Choushui River Alluvial Fan Case

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Abstract

This study aims to compare inversion software for transient-electromagnetic data using ZONDEM1D as commercial software and SIMPEG as open access software to know the limitation and advantage of both software. Furthermore, different methods will be used to do inversion using SIMPEG. Both software used for estimate the model of synthetic data with known parameters and field data. For the field data, survey was carried out using FASTSNAP System with 50 × 50 m transmitter loop configuration in northern part of Chousui river, Changhua County, Taiwan. Both result will be analysed based on the nearest VES sites and available geological information from the nearest borehole. Overall, this study provides new insight into inversion using different software, especially ZONDEM and SIMPEG.

Keywords: Transient Electromagnetic, Inversion, Resistivity