# 異常位相データの三次元インバージョン～屈斜路カルデラ周辺における例～

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# Three-dimensional inversion of anomalous magnetotelluric data -a example of the Kutcharo caldera, eastern Hokkaido, Japan-

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Magnetotelluric (MT) impedance tensors presenting anomalous large phases over 90 degrees in off-diagonal components posed a major issue to impede resistivity modeling because 1-D or 2-D resistivity structures were hard to explain the anomalous phase. Recent studies showed that 3-D resistivity model could explain anomalous phase data (e.g. L-shaped conductor model by Ichihara and Mogi (2009)). Thus 3-D inversion procedure has been expected to enable resistivity modeling in the anomalous phase areas. In this study, we interpreted synthetic and real anomalous phase data based on the 3-D inversion code developed by Siripunvaraporn et al. (2004). The synthetic data is based on the L-shaped model (Ichihara and Mogi, 2009), one of the simplest models to explain anomalous phase consisting of a regional conductor (e.g. seawater) and attached local conductor. The inversion explained the anomalous phase and presented a feature of the L-shaped conductor. It indicates that 3-D inversion can explain anomalous phase and clarify true resistivity distribution. We also explained the real anomalous phase data around the Kutcharo caldera, eastern Hokkaido, Japan where inland earthquakes and volcanic activities were observed. The inversion result of real anomalous phase data is also shown in the presentation.