

## Imaging the electrical resistivity structure at the vicinity of Duzce earthquake epicenter, Turkey

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Three dimensional modeling was performed on magnetotelluric (MT) data to show resistivity variations in vicinity of the epicenter of the 1999 Duzce earthquake ( $M_w=7.2$ ) occurring with a large rupture velocity difference between the western and eastern parts of the epicenter. Wide-band MT data for the frequency range between 320-0.0005 Hz were acquired along two parallel profiles at the west and the east of Duzce earthquake epicenter, DW and DE, respectively. Both profiles crossed the Duzce basin and the Duzce fault in the north and the North Anatolian Fault (NAF) in the south. Modeling attempts created resulting models that explain the regional tectonic entities as well as the changing rupture velocity related to the Duzce earthquake.