

## Block boundaries of uppercrust in the North-Eastern Tibet from Pg-wave velocity and anisotropy joint tomography

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The northern growth of Tibetan Plateau is a important scientific question and attract most attention from geologist and geophysicist. The sturcture of three blocks, Ordos, Alax and Tibetean Plateau, and their relationship is a key to resolve this question. We used Pg-wave travel time data from year 1980 to 2015 in this region, to obtain high resolution struction of upper crust by applying 2D velocity and anisotropy. The results show dominant low velocity beneath Tibetan Plateau, high velocity beneath Alax block and very high velocity beneath Ordos block. The anisotropy result show fast direction along fault strike in the three blocks, but fast direction almost pendic to the fault in the boundary zone between three blocks which may be resulted from consitent principle compress stress effect on the many near random micro-cracks in the active zone. The clear boundies can be determined by tomographic velocity and anistropy, and which suggest northern growth of Tibetan Plateau is a serial process of uplifting, faulting and thrusting effect on the margin of Alax block and Ordos block.

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