Moho depth and Vp/Vs ratio beneath the Isfahan network of Iran from analysis of teleseismic P receiver functions

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We used P receiver function analysis to obtain crustal structure beneath Isfahan region in Central Iran. We utilized over 200 telesismic events with mb larger than 5.5 and epicentral distances between 30 and 95 degrees. Data recorded by 5 short period stations between 2000 and 2007 provided enough data to map the crustal structure underneath this part of Iran. P receiver function analysis reveals a clear converted phase from the Moho discontinuity, which imaged at 4.3-5 s delay time after P onset time. Moho depth values calculated using Zhu and Kanamori method indicate an average depth of approximately 40 km for the Moho beneath Isfahan. Our Moho depth shows also little variations over the extent of the network and varies between 39 and 43 km. The average Vp/Vs ratio is 1.74 in good agreement with global results.