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Three-dimensional moho variation across the xuefengshan orogenic belt in East China

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In mainland China, the second topography gradient belt, extends from Daxing'anling in the northeastern China, through Taihangshan in the north China craton, and to Xuefengshan in South China, which separates the second- and third topography platforms in East China. In order to understand the crustal structure and moho variation across the xuefengshan orogenic belt, we make interpretation of seismic data of a new wide-angle seismic profile along and across Xuefengshan. Along the 840-km-long seismic profile, 12 shots were triggered with average shot interval of 60-90km, and 492 three-component seismographers were deployed with average receiver interval of about 1.5-2 km along the profile. Along the 600-km-long seismic across-profile, 200 seismographers were deployed with avergage receiver interval of about 3km at the same time. We employ the normal-moveout technique in across-profile records. After picking the PmP phase, we construct the three-dimensional Moho depth along and across the xuefengshan orogenic belt in East China and make discussion the connection between the deep structure and the topography shaping of the second topography gradient belt in East China.