Rayleigh waves across a crustal structure with a dent containing a low velocity zone

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Propagation of Rayleigh waves across a continental crustal structure with a dent is studied through a numerical model experiment by the use of the finite difference method. The crustal dent extends 250 km horizontally. The maximum depth at the midpoint of the dent is about 52 km.The back ground uniform crustal structure with a depth of 35 km is composed of two layers. Rayleigh waves with a predominent period of 20 sec, propagated through the crustal dent, are characterized as follows.Amplitude spectra of horizontal component relatively increase compared to those of vertical component. This tendency becomes more and more conspicuous if the crustal dent contains a low velocity zone at the bottom.