Abstract Details

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Title: COSEISMIC DEFORMATION OF THE GREAT KUNLUN EARTHQUAKE OF NOVEMBER 14, 2001 BY INSAR IMAGES

Abstract:

Based on the analysis of the coseismic deformation of the macroscop epicenter that is extracted by Differential Interferometric Synthetic Ap Radar (D-InSAR), combined with the seismic activity, the focal mecha solutions of the earthquake and the field investigation, the characteris coseismic deformation of the great Kunlun earthquake in 2001 was researched. The study shows that its epicenter lies in EN side of Hoh Lake; and the seismgenic fault of the macroscopic epicenter can be d into two-deformation center fields: the whole fault extends about 90 the length of each segment from the west to the east is 42 km and 4 respectively. From the distribution of the interferometry fringes, the characteristic of sinistral strike slip of the seismogenic fault can be ide clearly. The deformation of the fault's two-sides is differential; the s side's deformation is more than the north's. Near the macroscopic epicenter, the maximum displacement in InSAR range direction is abo 238.0 cm and the minimum is 176.4 cm; the maximum sinistral horiz dislocation of the seismogenic fault near the macroscopic epicenter is cm and the minimum is 451.5 cm. The work is supported by National Welfare Research Program (2002DIA10001) and Joint Seismological S Foundation of China (102096).

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