



Comparing The Results Of Terrasar-X And Envisat Sar Images With Ps-InSAR Methods On Slow Motion Landslides: Koyulhisar, Turkey

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In recent years, PS-InSAR method has been used widely on monitoring slow motion landslides. The motion amounts obtained by PS-InSAR method is available only in LOS(line of sight) and it can't provide information about three dimensional motions. Nevertheless, motions caused by landslides are usually 3 dimensional and also they are not homogeneous. This is one of the biggest handicaps of monitoring landslides with SAR method. In this study, annual motion rates of the PS points that are located in Koyulhisar landslide region are obtained from differently resolutioned sar images of Envisat and Terrasar-x satellite's frames through PS-InSAR method and by using StaMPS software. Throughout the landslide region a profile has been established in North-South line, and the correlation of the results obtained from the sar images lining on this profile. All results are observed to have %80 correlation with each other. By means of these results a subsidence area has been found in the northern region and an uplifting area has been found in the southern region. Through this study, general information about the landslide mechanism has been obtained.