InSAR DEFORMATION MONITORING FROM RADARSAT 2 AND ALOS IMAGES.
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Abstract:
RCM will provide rapid revisit InSAR images for deformation mapping. On forested sites where there are no corner reflectors, deformation mapping is difficult. This presentation is aimed at combining C and L-band radar images to improve the time series deformation mapping. We focus on monitoring shallow landslides on dense forest slopes affecting the main highway to Corner Brook, Newfoundland. The highway was closed for 3 days after Hurricane Irene in August 2011. We used RADARSAT 2 InSAR images to document the land motion in some areas immediately after the hurricane. The slopes near the highway are still unstable and require continuous monitoring especially during wet spring and storm events. We used R2 and ALOS images to improve the monitoring of the unstable areas affecting the highway. Our results show that the combination of RADARSAT and ALOS provides an improvement in InSAR monitoring of slope stability in dense forest areas.

Keywords: Surface deformation, InSAR, ALOS, RADARSAT