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Surface soil moisture variability during NAFE'06

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The National Airborne Field Experiment 2006 (NAFE'06) was held from 30 October to 18 November 2006 in the western part of the Murrumbidgee catchment, Australia. The purpose of the project was to map near-surface soil moisture at a range of resolutions making use of passive microwave airborne and spaceborne remote sensors. Ground monitoring of surface soil moisture was conducted at 6 sites in the 60 by 60 km region throughout the campaign. The region experienced severe drought conditions, with no rainfall in the 5 weeks preceeding the campaign and only 2 minor events during the campaign. Here we present the main results of the ground monitoring and analyse the response of the mean soil moisture and its spatial variability using a simple mathematical framework.