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SEMINAR

<i>Date</i>	<i>Tuesday, October 27, 2009, at 3 pm</i>
<i>Meeting Room</i>	<i>ETH Hönggerberg, HIL G 36.1</i>
<i>Name</i>	<i>Dr. Haijing Wang</i>
<i>Institute</i>	<i>IfU, ETH Zurich</i>

Remote Sensing of Monitoring Water Surface Changes in West Liao Region



Abstract:

A new method was developed to extract water surface area from remote sensing images of Landsat TM and ETM+. This method is then used in West-Liao region, where reservoirs and lakes in Horqin Sandy Land were shrinking due to local climate change and over-pumping for agriculture. Landsat images from 1995 to 2007 were collected to extract lake surface areas. The comparison between the temporal variations of surface water area of lakes and groundwater table elevation in the studied region shows that it is possible to use high resolution satellite images to monitor groundwater table elevations and estimate groundwater recharge in a region, where no groundwater monitoring is available. The kc variation of Molimiao Reservoir between 1995 and 2007 also shows that the reduced water area actually helps to save water from wasteful evaporation.