



## **Reduction of cloud coverage by combining Terra and Aqua MODIS snow cover images**

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MODIS snow cover products are attractive for hydrological applications because of their good accuracy and daily availability. Their main limitation, however, is cloud obscuration. In this presentation we evaluate a simple mapping method that reduces cloud coverage by combining two MODIS snow cover products, images from the Terra and Aqua satellites. The spatial and seasonal cloud reduction is evaluated over Austria using daily images in the period 2003-2005. The accuracy of the combined snow cover product is then assessed using daily snow depth observations at 754 climate stations in the same period. The results indicate that the combination of two daily snow cover products are efficient in cloud reduction, and the resulting snow maps are still in good agreement with the ground snow observations. An average of 63% cloud coverage of the Aqua images is reduced to 51.7% for the combined Aqua-Terra images and the corresponding overall accuracies change from 95.5% (Aqua) to 94.9% for the combined product.