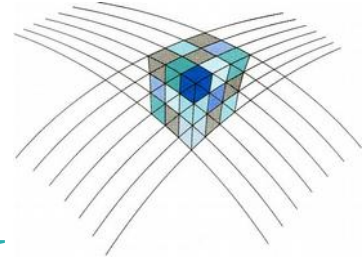


NCG



Netherlands Center for Geodesy and Geo-informatics

## Abstract submission for the NCG Symposium 2020 "Theory meets Practice"

Abstract submission deadline: **14 September 2020**

Please submit your abstract EasyChair

<https://easychair.org/conferences/?conf=ncg2020>

Name: Bas Altena

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Presentation title: Extracting glacier elevation change from time-series of monoscopic satellite imagery.

Demo: no

Abstract (~100 words and optionally 1-2 figures):

Mapping glacier elevation change over time at large scale, helps to quantify regional patterns of climate change in remote regions of the world. Historical surface topography missions from space have been limited to a handful of photogrammetric systems. The lack of stereoscopic imagery, but abundance of satellite image time-series, justifies the exploration of techniques for monoscopic retrieval of topography. We explore the potential of shadow casting, which is a simple triangulation, but an effective tool for elevation change extraction over glaciers in the high mountains or at sub-arctic latitudes. We will showcase ongoing work and first results from the Sentinel-2 mission over a mountain range in Alaska.