

Generating three-dimensional models by a software that unifies SfM and multiview stereo (MVS)

UCHIYAMA, Shoichiro^{1*}

¹National Research Institute for Earth Science and Disaster Prevention (NIED)

In recent years, the software which unified Structure from Motion (SfM) and multi-view stereo (MVS) was developed. By this, construction of three-dimensional models and its Digital elevation models (DEMs) can be achieved with PC at easy and low cost. This paper shows a method for generating three-dimensional models by using with a SfM-MVS software and images captured by a handheld camera or an UAV's.

Keywords: structure from motion (SfM), three-dimensional model, digital surface model (DSM), unmanned aerial vehicle (UAV), geomorphometry, image acquisition for calculation