

HTT33-P02

Room:Poster

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## Generating an orthophoto from SfM calculation with the low-quality air photographs taken in the 1964 Niigata earthquake

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This study shows that generating the orthophoto from low quality aerial photographs using structure from motion (SfM). National Research Institute for Earth Science and Disaster Prevention (NIED) is archiving a lot of old aerial photographs and its original roll films. However, some films are deteriorating. One of them is the 1964 Niigata earthquake's film. This deteriorated photographs were taken 50 years ago, nevertheless, the result of SfM calculating were sufficient quality and generated orthophoto with 0.2 m resolution. As a result, low quality aerial photographs are available to utilize for SfM.

Keywords: structure from motion (SfM), low quality aerial photograph, 1964 Niigata earthquake, ground control point (GCP), orthophoto

