Discussion on the ground ruptures appeared in alluvial plain in Aso caldera and earthquake fault based on field investigation and low-altitude aerial photogrammetry.

*Kei Tanaka¹, Takashi Nakata², Nobuhisa Matsuta³, Kyoko Kagohara⁴, Daishi Takenami⁵, Takashi Kumamoto⁴, Hikaru Moriki⁵


We examined ground ruptures appeared in alluvial plain in Aso caldera based on field investigation and low-altitude aerial photogrammetry, in order to discuss their origin. Ground ruptures are extended from north of Aso-Nishi primary school in the south to Uchinomaki hot spring in the north. They are aligned in ENE-WSW direction forming elongated depressions bounded by parallel running steep scarps with maximum height of 2m. They are, in places, are associated right-lateral fault slips of several decimeters. Therefore we suggest that some of the ground ruptures are probably triggered by surface faulting and resulted in extensive ground ruptures.

Keywords: Kumamoto Earthquake, surface fault, ground rupture, Aso caldera