[EJ] Evening Poster | S (Solid Earth Sciences) | S-SS Seismology

[S-SS08]Active faults and paleoseismology

convener:Mamoru Koarai(Earth Science course, College of Science, Ibaraki University), Hisao Kondo(Geological Survey of Japan, National Institute of Advanced Industrial Science and Technology), Ryosuke Doke(神奈川県温泉地学研究所, 共同), Nobuhisa Matsuta(Okayama University Graduate School of Education)

Tue. May 22, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

Geologic and historic information on seismic cycles and on the magnitude and source faults of past earthquakes is essential information to understand future large earthquakes. The study of past faulting and seismicity is an important issue for an interdisciplinary community of seismologists, geologists, geomorphologists, archaeologists, and historians.

[SSS08-P15]Active fault mapping in central Omachi City, Nagano Prefecture, using high-resolution DEM

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Keywords:active fault, tectonic landform, digital elevation model, ISTL active fault zone, central Omachi City

We report the existence of a ca. 1-km-long NNW-trending trace of possible active fault in central Omachi City, Nagano Prefecture, revealed by geomorphic analysis using high-resolution digital elevation models from airborne LiDAR data issued by Geospatial Information Authority of Japan. Our evidence for this fault trace is (1) slope-direction anomaly in the fan of the Kashima River identified by detailed elevation contours, (2) east-side-up vertical displacement indicated by topographic profiles, and (3) bend of an abandoned channel near the fault trace. This fault trace possibly extends to the active fault trace to the south, because the amount of displacement becomes larger toward the south. This study is part of Sugito and Goto (in preparation). This work was supported by JSPS KAKENHI Grant Numbers 15K16285 and 16H03114.