Active faults and paleoseismology

Convener:*Takashi AZUMA(National Institute of Advanced Industrial Science and Technology), Nobuhiko Sugito(Faculty of Humanity and Environment, Hosei University), Satoshi Tonai(Department of Applied Science, Faculty of Science, Kochi University), Toshikazu Yoshioka(Active Fault and Earthquake Research Center, National Institute of Advanced Industrial Science and Technology), Chair:Taku Komatsubara(Institute of Geology and Geoinformation, Advanced Industrial Science and Technology), Nobuhiko Sugito(Faculty of Humanity and Environment, Hosei University)

Tue. Apr 29, 2014 9:00 AM - 10:48 AM  502 (5F)

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.

10:30 AM - 10:45 AM

Geologic structures around the coastal area of the southern part of the active eastern boundary fault zone of Ishikari l

3-min talk in an oral session

*Tomoyuki SATO¹, Taku KOMATSUBARA¹, Yoshihide KOU¹ (1.Institute of Geology and Geoinformation, Geological Survey of Japan, AIST)

Keywords:Active eastern boundary fault zone of Ishikari lowland, Seismic survey, Quaternary, Hokkaido, Coastal area

A 130-km-long N-S trending active fold and thrust zone (eastern boundary fault zone of Ishikari lowland) occurs in the Ishikari lowland and off the Yufutsu plain. This fault system is one of the boundary faults between the Kuril arc and the Northeast Japan arc. We surveyed around the coastal area of the Yufutsu plain based on the marine high-resolution seismic-survey and the database of land borehole cores. As a result, two active anticlines (Yufutsu anticline and Hamaatsuma anticline) were recognized. These anticlines can be correlated to the anticlines described as a part of the active eastern boundary fault zone of Ishikari lowland (AIST, 2007). The trend of the Yufutsu anticline was N-S despite The Headquarters for Earthquake Research Promotion reported the trend was NW-SE. The Hamaatsuma anticline continued to the Mukawaoki anticline and the southern end of the fault zone extend to the southern end of the Mukawaoki fault which is concerned to the Mukawaoki anticline.AIST(2007)Activity survey of the eastern boundary fault zone of Ishikari lowland. Working papers. H18-8, 35p.Headquarters for Earthquake Research Promotion(2010) Evaluation of the eastern boundary fault zone of Ishikari lowland (revised). 34p.