Oral | Symbol M (Multidisciplinary and Interdisciplinary) | M-IS Intersection

## [M-IS23\_2PM1]tsunami deposit

Convener:\*Kazuhisa Goto(International Research Institute of Disaster Science (IRIDeS),Tohoku University), Masanobu Shishikura(Active Fault and Earthquake Research Center, GSJ/AIST), Yuichi Nishimura(Graduate School of Science, Hokkaido University), Chair:Masanobu Shishikura(Active Fault and Earthquake Research Center, GSJ/AIST)

Fri. May 2, 2014 2:15 PM - 4:00 PM 415 (4F)

After the 2011 off the Pacific coast of Tohoku Earthquake and tsunami, the tsunami deposit is reconsidered as very important and useful tool for future tsunami risk assessment. However, identification criteria of the tsunami deposit are not yet established. Moreover, it is still uncertain how to use the tsunami deposit in the risk assessment. In this session, we discuss the deposits that were formed by the tsunamis generated by earthquake and other mechanisms. The talks on the risk assessment using the tsunami deposits are also welcome.

## 3:45 PM - 4:00 PM

## [MIS23-P12\_PG]The use of benthic foraminifera within tsunami sediments

## 3-min talk in an oral session

\*Briony MAMO<sup>1</sup>, Takashi TOYOFUKU<sup>1</sup> (1.Japan Agency for Marine and Earth Science and Technology) Keywords:Tsunami, Foraminifera, Benthic, Tsunami deposit

Tsunami hazard assessment begins with a compilation of past events that have affected a specific location. Given the inherent limitations of historical archives, the geological record has the potential to provide an independent dataset useful for establishing a richer, chronologically deeper time series of past events. Recent geological studies of tsunami are helping to improve our understanding of the nature and character of tsunami sediments. Wherever possible, researchers should be increasingly working to improve the research ' tool kit' available to identify past and analyse modern tsunami events. Marine, benthic foraminifera (single celled heterotrophic protists) have often been reported as present within tsunami-deposited sediments but in reality, little information about environmental conditions, and by analogy, the tsunami that deposited them, has been reported even though foraminifera have an enormous capacity to provide meaningful palaeo-environmental data. In light of more recent tsunami events, the use of foraminifera has increased yet their full potential in this capacity is still often not frequently utilised. We discuss the potential use of foraminifera within tsunami research using results from specific case studies from Japan, south Asia, North America, Europe, the UK and New Zealand. We present an updated review in the gaps in our understanding on this topic area and reassert models for ' better' practice where possible, to assist researchers who examine foraminiferal assemblages within tsunami geology.