

## Frontier seismology viewed from polar region

# Masaki Kanao[1]

[1] NIPR

<http://polaris.isc.nipr.ac.jp/~pseis/>

The polar regions is a places where have unique aspects of seismology on both Antarctica / Arctic areas and general issues that would be common to global Earth sciences; for example: - lithospheric dynamics in an ice-covered environment;- how lithospheric processes drive and may be driven by global environmental change (sea level, climate);- the scale and nature of rifting as a process that has shaped the continent and dominated its evolution;- the role of Antarctica as the keystone in the super-continent formation and break-up throughout Earth's history;- how the tectonic and thermal structure of the Antarctic lithosphere affect current ice sheet dynamics;- age, growth, and evolution of the continent and processes that have shaped the lithosphere;- the effect of improved seismic coverage on global models of the lithosphere, mantle, and core. The International Polar Year (2007-2008) may be a good chance to initiate the International collaboration to make a seismic deployment

to achieve these targets. This presentation introduce the recent seismological works to obtain efficient results and insights into frontier regions of the Earth as viewed from Polar regions.