Principal Component Analyses of Seismic Activity in the Plate Boundary Zone of Northeastern Japan Arc.

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The microseismic activity in the boundary zone of northeastern Japan arc was newly analyzed by principal component analysis method (Jollife, 2002) for discrete units made by 25 x 25 separation of the boundary zone with 10 km thick over the plate boundary. The results are that there are two types of reduced parameter trends in the studied region. In additions it is concluded that there are two types of evolutionary tracks in the studied area: one is isolated activity type and another is the north-southern strong correlated activity in the studied region. These facts are derived from the mechanical properties and fluid behavior of the plate boundary zone under large scale plate motion.

References
Jollife, I.T., Principal Component Analysis, 530pp, Springer, 2002.