

## **Eruptions and earthquakes in the 9th century, as surface expressions of E-W shortening in East Japan**

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We have reported eruptions of Izu islands and Fuji volcano simultaneously occurred in the 9th century from a geological survey and reexamination of historical documents (Tsukui et al., 2006, Bull. Volcanol. Soc. Japan).

We collected historic documents of eruptions and inland earthquakes in a wider area to clarify background tectonics of these episodic events. As a result, we confirmed that in the 9th century, not only eruptions of Niigata Yakeyama in 887 AD, Chokai volcano in 871 AD, and collapse of Yatsugatake volcano in 888 AD took place, but also severe earthquakes struck along Itoigawa - Shizuoka tectonic line active fault system in 841 AD (and 762 AD), Nagano Active fault system and Niigata plain. Active fault systems in these areas are known as N-S trend thrusts and NW-SE left lateral faults.

We concluded that eruptions and earthquakes in the 9th century are expressions of East-West shortening of East Japan Arc, between Amur plate and North American plate, and between Philippine Sea plate and Pacific plate.