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The 2004 Noto Peninsula Earthquake Tsunami - It's Generation, Propagation, Inundation, and Impact

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The tsunami was generated by the Mw7.6 Noto Peninsula Earthquake and left widespread impact. After the event occurred, we modeled the tsunami propagation and coastal inundation with various tsunami source models and discussed its propagation and inundation features.

Preliminary tsunami modeling results imply that the impacts were severe around Noto Peninsula (Shika to Nanao). Specific bathymetric features of the continental shelf of Noto Peninsula were responsible for high tsunamis in Suzu City. The directivity of tsunami energy was also toward the Japan Sea coasts, especially Joetsu City, Nigata Prefecture. Early tsunami arrival at Toyama City with the leading negative wave could not be explained by fault rupture. The post-tsunami field survey teams at Suzu City preliminarily found tsunami run-ups of 3 m or higher with flow depths of 2.5m or higher. Inside the tsunami inundation zone around Noto Peninsula, we found at least 648 houses were destroyed by both the strong ground motion and tsunami.