

TSUNAMI FRAGILITY INFERRED FROM THE 1993 HOKKAIDO NANSEI-OKI EARTHQUAKE TSUNAMI DISASTER

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ABSTRACT: The authors proposed the tsunami fragility curves to estimate the structural damage by the 1993 Hokkaido Nansei-oki earthquake tsunami, by the integrated approach of damage inspection of aerial photographs of pre and post tsunami in Aonae town and the numerical modeling of tsunami inundation flow. The tsunami fragility curves are expressed as the structural damage probabilities with regard to the hydrodynamic features of tsunami inundation flow, such as inundation depth, inundation height, current velocity and hydrodynamic force, to expand the capability of estimating potential tsunami damage in a quantitative manner.

Key Words: JTsunami, Tsunami Fragility Curve, The 1993 Hokkaido Nansei-oki Earthquake