

## **Reproduction of the Tsunami Behavior against a Station Building by a Large Scale Numerical Simulation**

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The coastal area of the Tohoku region suffered serious damage from the tsunami caused by the Great East Japan Earthquake in 2011. A target in our research is to develop a simulator in order to predict potential damage and to take disaster prevention measures for railway structures against such large scale tsunami. In this research, the tsunami of the Great East Japan Earthquake was simulated and the damage process of the Shishiorikarakuwa station in Kesenuma city was estimated by our tsunami simulator. In the tsunami simulator, a zoom up analysis by three analyses stages is adopted to cover a large area from an epicenter to an urban area. From the result of the tsunami simulation, the structure analysis of the Shishiorikarakuwa station under the tsunami fluid pressure is performed.