

# SC13 Short lecture @ AICS

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Name	Dr. Makoto Tsukakoshi (The Earth Simulator Center, JAMSTEC, Field 3)
Title of your Presentation	Advanced Prediction Researches for Natural Disaster Prevention and Reduction
Abstract	<p>Almost every year Japan is hit by natural disasters like typhoons, heavy rains and earthquakes. Especially, on 11th of March 2011, an earthquake of magnitude 9.0 occurred off the Pacific coast of Tohoku followed by a massive tsunami and caused huge damage.</p> <p>To evaluate natural disasters and verify measures to prevent and reduce them, it is not possible to conduct field experiments and very large scale simulations on supercomputers are inevitable. On the basis of the large scale simulations on "Earth Simulator", our team has been using "K computer" since fiscal year 2011.</p> <p>Our goals are to predict the intensity and the number of typhoons and hurricanes under global warming, to demonstrate the feasibility of the numerical prediction of local heavy rains, to provide the basis for next-generation earthquake hazard maps, to improve the accuracy of tsunami warnings and to reduce damages by the natural disaster simulation including entire urban areas.</p>