

## **Dr. Kenji Satake**

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### **Narrative**

Dr. Satake is one of the world leaders in tsunami research. He is interested in earthquake source process, tsunami generation process, studies of earthquakes and tsunamis from historical and geological data. After the 2004 tsunami in Indian Ocean, he immediately carried out numerical simulation of the tsunami and his animation was broadcasted all over the world. He also visited the affected coasts for tsunami survey to measure the tsunami heights, and also estimated the tsunami source from instrumental records of tsunamis. He was educated in geophysics at Hokkaido University and University of Tokyo, and has had research and teaching experience in Tokyo Institute of Technology, California Institute of Technology, University of Michigan, and Geological Survey of Japan. Currently he is a deputy director of Active Fault Research Center, National Institute of Advanced Industrial Science and Technology (AIST), and serves as a chair of Tsunami Commission of International Union of Geodesy and Geophysics, and secretary general of Asia Oceanic Geosciences Society.

### ***Current Position***

Deputy Director of Active Fault Research Center, National Institute of Advanced Industrial Science and Technology (AIST)

### ***Academic Service***

International Union of Geodesy and Geophysics, Tsunami Commission, Chair, 2003-  
Asia Oceanic Geosciences Society, Secretary General, 2004-

### ***Educational Background***

Bachelor of Science and Master of Science, Hokkaido University, 1982, 1984  
Doctor of Science, University of Tokyo, 1987

### ***Professional Carrier***

Tokyo Institute of Technology, Research Assistant, 1985-1990  
California Institute of Technology, Visiting Research Associate, 1988-1990  
University of Michigan, Assistant Professor, 1990-1995  
Geological Survey of Japan, Senior Researcher, 1995-2001  
National Institute of Advanced Industrial Science and Technology (AIST), AFRC, Team

Leader 2001-2003, Deputy Director of AFRC 2003-

***Research Interests***

Seismology, tsunamis, paleoseismology

***Selected Publications***

- Satake, K., F. Nanayama, S. Yamaki, Y. Tanioka, and K. Hirata, Variability among tsunami sources in the 17th-21st centuries along the southern Kuril trench, in K. Satake (ed.), *Tsunamis: Case Studies and Recent Developments*, Springer, 157-170, 2005.
- Sawai, Y., K. Satake, T. Kamataki, H. Nasu, M. Shishikura, B.F. Atwater, B.P. Horton, H. Kelsey, T. Nagumo and M. Yamaguchi, Transient uplift after a 17th-century earthquake along the Kuril subduction zone, *Science*, 306, 1918-1920, 2004.
- Satake, K., K. Wang, and B.F. Atwater, Fault Slip and Seismic Moment of the 1700 Cascadia Earthquake Inferred from Japanese Tsunami Descriptions, *J. Geophys. Res.*, 108 (B4), 2196, doi: *J. Geophys. Res.*, 108 (B11), 2535, doi:10.129/2003JB00252, 2003.
- Satake, K. and Y. Tanioka, The July 1998 Papua New Guinea Earthquake: Mechanism and Quantification of Unusual Tsunami Generation, *Pure Applied Geophys.*, 160, 2087-2118, 2003.
- Nanayama F, K. Satake, R. Furukawa, K. Shimokawa, B.F. Atwater, K. Shigeno, and S. Yamaki, Unusually large earthquakes inferred from tsunami deposits along the Kuril trench, *Nature*, 424 (6949): 660-663, 2003.
- Satake, K., Tsunamis, in W.H. K. Lee, H. Kanamori, P. C. Jennings, and C. Kisslinger (eds.) *International Handbook of Earthquake and Engineering Seismology*, 81A, 437-451, 2002.
- Satake, K., K. Shimazaki, Y. Tsuji and K. Ueda, Time and size of a giant earthquake in Cascadia inferred from Japanese tsunami records of January 1700, *Nature*, 379, 246-249, 1996.