

The 21 Century COE Project
Exploring New Science by Bridging Particle-Matter Hierarchy

**Short-term Foreign Researchers
Research Report**

Name: Petr Vogel

Affiliation: California Institute of Technology

Host Researcher in Tohoku University: A. Suzuki and K.Inoue

Your Stay Period in Japan: From Feb. 10, 2004 to Feb.25, 2004

Title of Research in Japan:

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Please write a research report of one or more pages and submit it with this cover to your host researcher till the end of this March.

I visited Japan, Tokyo and Mozumi, from February 10 until February 25, 2004, with the support of the 21st Century COE grant.

The first several days of my stay was devoted to the participation at the NOON2004 conference (5th workshop on ``Neutrino Oscillations and Their Origin", Odaiba, Tokyo, February 11-15, 2004). I was a member of the International Advisory Committee for the conference and I gave an invited talk on "Neutrino-nucleus cross sections: Measurements vs. Calculations" there. In addition I chaired one of the sessions and participated in the lively discussions at the workshop, in particular those concerning the KamLAND results and further plans as well as the planned activities concerning the determination of the θ_{13} angle in the MKS neutrino mixing matrix using nuclear reactors as the neutrino sources.

The rest of my stay in Japan was devoted to the shift duty at the KamLAND experiment in Mozumi. I took the third shift from February 17 until February 25. The KamLAND detector was working very reliably during that time; there were no problems.

I am very grateful to the COE grant that made my trip and scientific activities possible and enjoyable.