



千葉大学大学院理学研究院附属

ハドロン宇宙国際研究センター

International Center for Hadron Astrophysics

ICEHAP Seminar

Date Sept. 1 Tuesday **10 : 00~11 : 00**

Location ICEHAP Office (Engineering Research Bldg.1 Room609-1)

By Dr. Shintaro Ito (Okayama University)

Title

『The SK-Gd Experiment

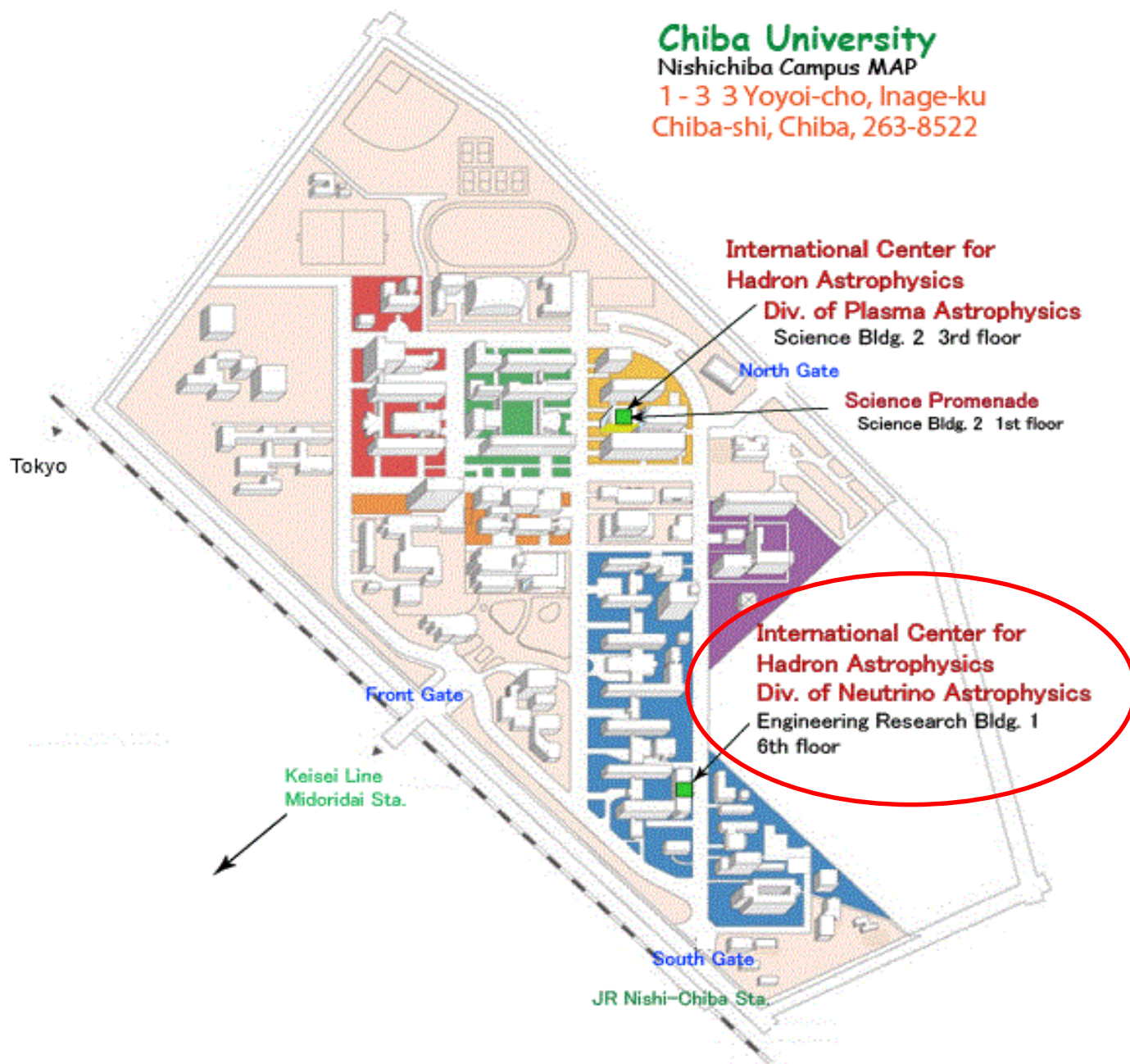
—A New Experimental Phase to Search for Supernova Relic Neutrinos—』

Abstract

The Super-Kamiokande Gadolinium (SK-Gd) project is an upgrade of the Super-Kamiokande (SK) detector by dissolving gadolinium sulfate octahydrate ($\text{Gd}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$) into the SK detector up to the 0.2% concentration. One of the main physics targets of SK-Gd is to discover supernova relic neutrinos and study star formation of the universe. To dissolve $\text{Gd}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$ into the SK tank, many researches and developments, for example productions of pure $\text{Gd}_2(\text{SO}_4)_3 \cdot 8\text{H}_2\text{O}$, water leakage fixing of the SK tank, and so on, were performed. The SK-Gd experiment has finally been started since the middle of July 2020. The researches and developments and the current status of the SK-Gd experiment will be presented in the seminar.

Location: Neutrino Astrophysics Department

@ Engineering Research Bldg. 6th floor



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