



千葉大学大学院理学研究科附属

ハドロン宇宙国際研究センター

International Center for Hadron Astrophysics

March ICEHAP Seminar

Date March 28th Monday 14 : 00~16 : 00

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

By Dr. Alan Watson , University of Leeds

Title

『Results from the Pierre Auger Observatory relevant to
Astrophysics and Hadronic Physics』

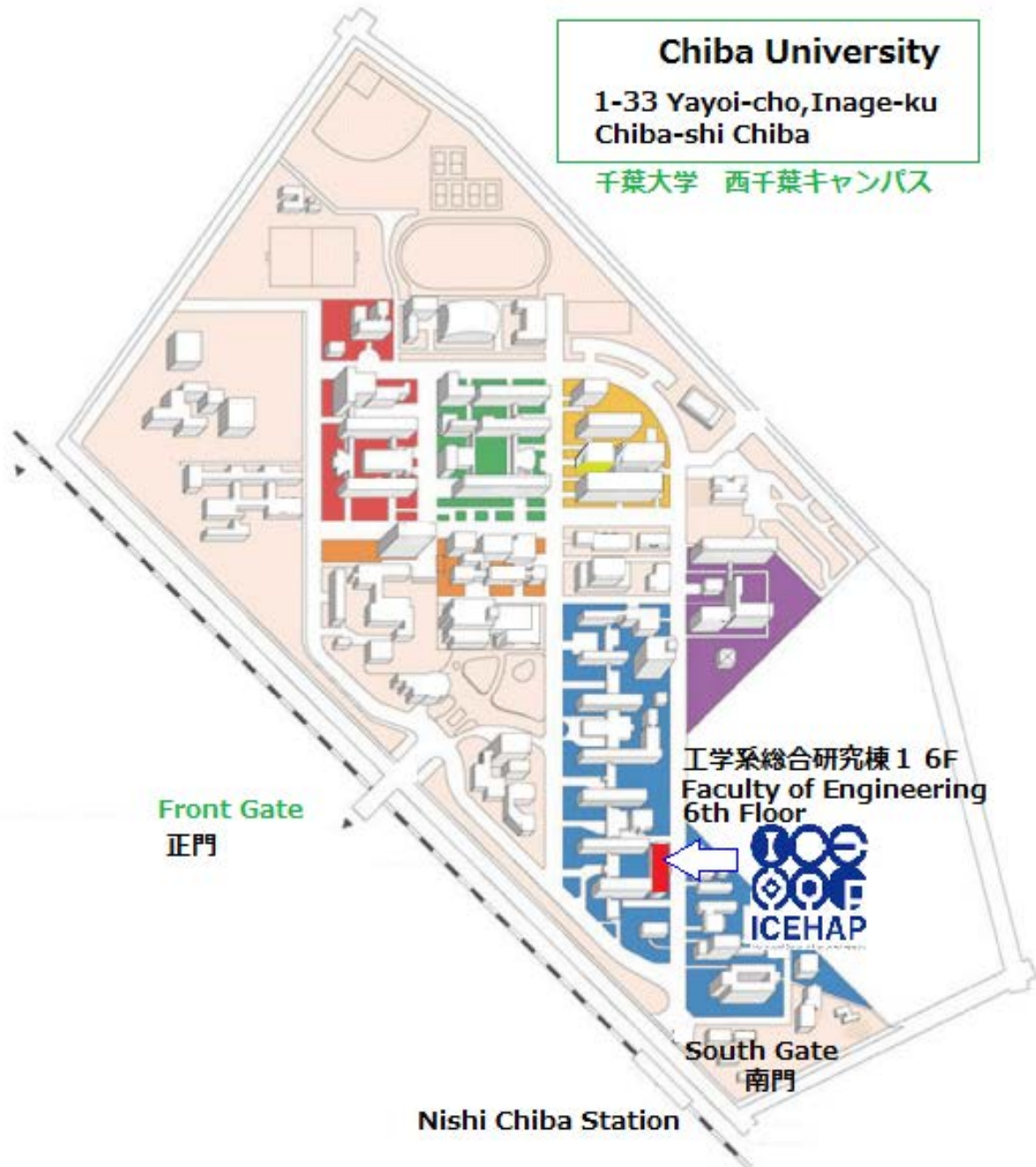
Abstract

Following a short description of the Pierre Auger Observatory, I will briefly describe the measurements of the energy spectrum and the arrival-direction distribution of cosmic rays above 0.3 EeV. I will review results on the mass composition beyond 0.6 EeV in some detail, discussing interpretations from different approaches that support the conclusions of the Auger Collaboration that protons are not dominant in the region of the ankle.

The array of deep-water Cherenkov detectors of the Auger Observatory is extremely effective for studies of very-inclined air-showers. A search for high-energy neutrinos has been possible, as have measurements of the muon content of showers and of the longitudinal development of the muon component. I will describe the methodology of the neutrino search and report the results.

Comparisons of the muon content and of the longitudinal development with predictions from hadronic models suggest that these may need revision.

Our New Location:



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