News

Okayama University Holds Special Lecture: Higgs Boson—the Last Elementary Particle

Okayama University organized a special lecture on the Higgs boson—known as the 'last elementary particle'—at the 50th Anniversary Hall on 1 August 2012. Theoretical physicists have predicted the existence of 17 elementary particles, including the Higgs boson. Recently, after years of experimental research efforts an international research team based in Europe announced the possibility of the existence of the Higgs boson.

The scene at the Okayama University Special Lecture on the Higgs Boson

This lecture was given by Professor Itsuo Nakano, Director of Research Center of Quantum Universe at Okayama University, and a member of the research team searching for the elusive particle, where he described the significance of the discovery.

Professor Itsuo Nakano gives his presentation

The lecture was attended by about 350 people, including students from Okayama University students, high school students, and members of the general public. Prior to Professor Nakano's lecture, Hirokazu Ishino, an associate professor at the Department of Physics gave a presentation entitled 'Seeking the Secrets of Particle Physics in Space' explanation the types and sizes of particles and why a high energy accelerator is needed to detect them. "Particle physics will lead us to discover the origins of the universe," he said.

In his lecture Professor Nakano started with a general introduction to the Higgs boson—thought to be the origin of mass itself—and then gave a detailed explanation about the structure and operation of the detector he participated in developing as part of the series of experiments performed using the Large Hadron Collider. According to Professor Nakano, "we cannot rest on the laurels of this great discovery." Emphasizing that, "the real research starts now. We need to continue our research into the properties of the new particle and ascertain that it is, in fact, the Higgs boson."

Professor Nakano also had a message for the high school students in attendance: "There are many particles besides Higgs-Boson that remain a mystery to us and the onus is on you to unlock those mysteries in future."

