

講座大師劉全生專題演講一

*Search for Fusion in the sun and on Earth--Current status of Internatinal Effort
for controlled fusion*

In this talk I will first traced the development of ideas of nuclear fusion as the process to account for the energy source for sun and stars. Then I will discuss the detection of solar neutrinos and the final confirmation of the fusion in the core of the sun cumination in the award of Nobel prize to Davis and Koshiba. Then I will talk about the fusion on earth with the explosion of H bomb and the subsequent arm race it led to. The controlled fusion research and its present status including the building of ITER for burning plasma and laser fusion research.

Laser Plasma Interactions --Laser plasma acceleration

I will discuss the laser plasma acceleration and the possibility of building a table top GEV electron accelerator with short pulse lasers. The major achievement of monoenergetic electron and ion acceleration last year, including the work here in Taiwan will be emphasized. Their potential implication for physics research and for medical applications will be discussed.