

Focus Week on Astrophysics of Dark Matter

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“Focus Week on Astrophysics of Dark Matter” was held at IPMU on May 30 - June 3, 2011, aiming to bring together experts in particle physics and cosmology as well as in astrophysics, to discuss the future prospects for identifying dark matter. Despite the serious situation of Japan due to the earthquake and nuclear reactor problems, many researchers from several countries gathered together to discuss the dark matter problem and fortunately there were many attendants, including graduate students. During this focus week, several topics about the dark matter problem were discussed. The warm dark matter was one of main topics in the focus week, for example, and was actually discussed in detail in terms of theoretical motivations, simulation studies, and observational constraints, following excellent morning review talks. The WIMP dark matter, which is the traditional candidate for cold dark matter, was also an important topic in the focus week. We discussed the topic with a particular focus on the light WIMP dark matter (its mass is about 10 GeV) from the viewpoint of DAMA/CoGeNT anomalies. The dark matter problem



is one of the biggest in particle physics, cosmology, and astrophysics, and this problem actually deeply concerns the core questions of IPMU, “what is the universe made of.” Following this focus week, it is very important to hold workshops aiming to discuss dark matter.