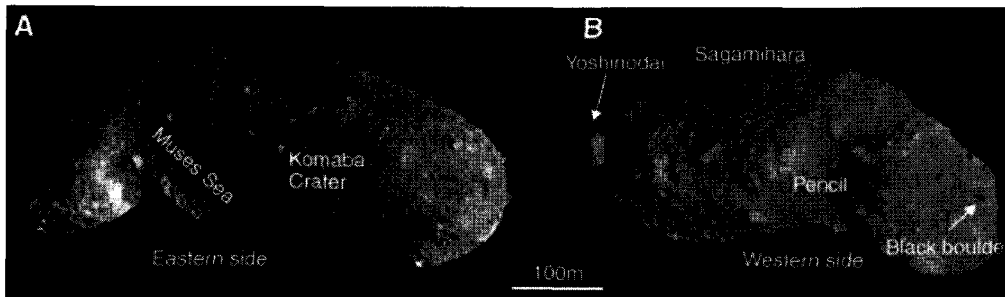


[IT02] A First Look at Tiny Asteroid Itokawa  
by Hayabusa/AMICA Observations

Masateru Ishiguro<sup>1</sup> and Hayabusa Science Team

<sup>1</sup>*Astronomy Program, Department of Physics and Astronomy, SNU*

The Hayabusa (the original code name is MUSES-C) engineering spacecraft was designed to obtain samples from the surface of an asteroid and return them to Earth. On 12 September 2005, the Hayabusa spacecraft successfully arrived at the target asteroid 25143 Itokawa (1998 SF36). For nearly two month before the sampling, the remote sensing observations were performed not only for the sampling site selection but also for scientific purposes. In this presentation, we show the initial scientific results obtained by the multi-band imaging camera (AMICA) [1]. AMICA was intriguingly calibrated by the astronomical observations. Unlike previously explored asteroids, this tiny asteroid is covered with numerous boulders instead of fine regolith, and shows large variations in both color and albedo [2]. In addition to AMICA's results, we will review the telescopic observations from the ground, and consider how well current theories and interpretations of telescopic data can predict the true physical properties of asteroids.



Global images of Itokawa (Saito et al. 2006 [1])

Reference

[1] Saito et al. 2006, Science 312, 1341-1344

[2] Ishiguro et al. 2006, LPSC XXXVII abstract no.153