Key technology investigations of landing and attaching on an asteroid's surface

C. Jiang¹, W. Jiang¹, Y. Wang¹, and W. Huang¹

¹Beijing Institue of Space Mechanics & Electricity(BISME)

For asteroid missions, landing and attaching on the asteroid surface is an important step, and has therefore recently become a focus point for research. Because of the extremely low gravity on an asteroid's surface, the key technology is very different from the technology required for landing on a large celestial body. In this paper, we will first discuss the significance of and key technology required for landing and attaching on an asteroid's surface. Then, we will present the research about the landing absorbing technology, attaching technology, landing dynamics and test technology for simulating low gravity on ground. Finally, we give our suggestions for landing and attaching on an asteroid's surface.