

ACTR

(Asteroid Composition Through Reflectance)

Problem

- \$2,100/kg Falcon 9
- 420,000 kg for ISS
- \$1.7 Billion



Impact

- Economic - Earth mining economy and reduced mission cost
- Technological - Enabling construction in space
- Social - Reduced dependence on current sources for rare earth metals

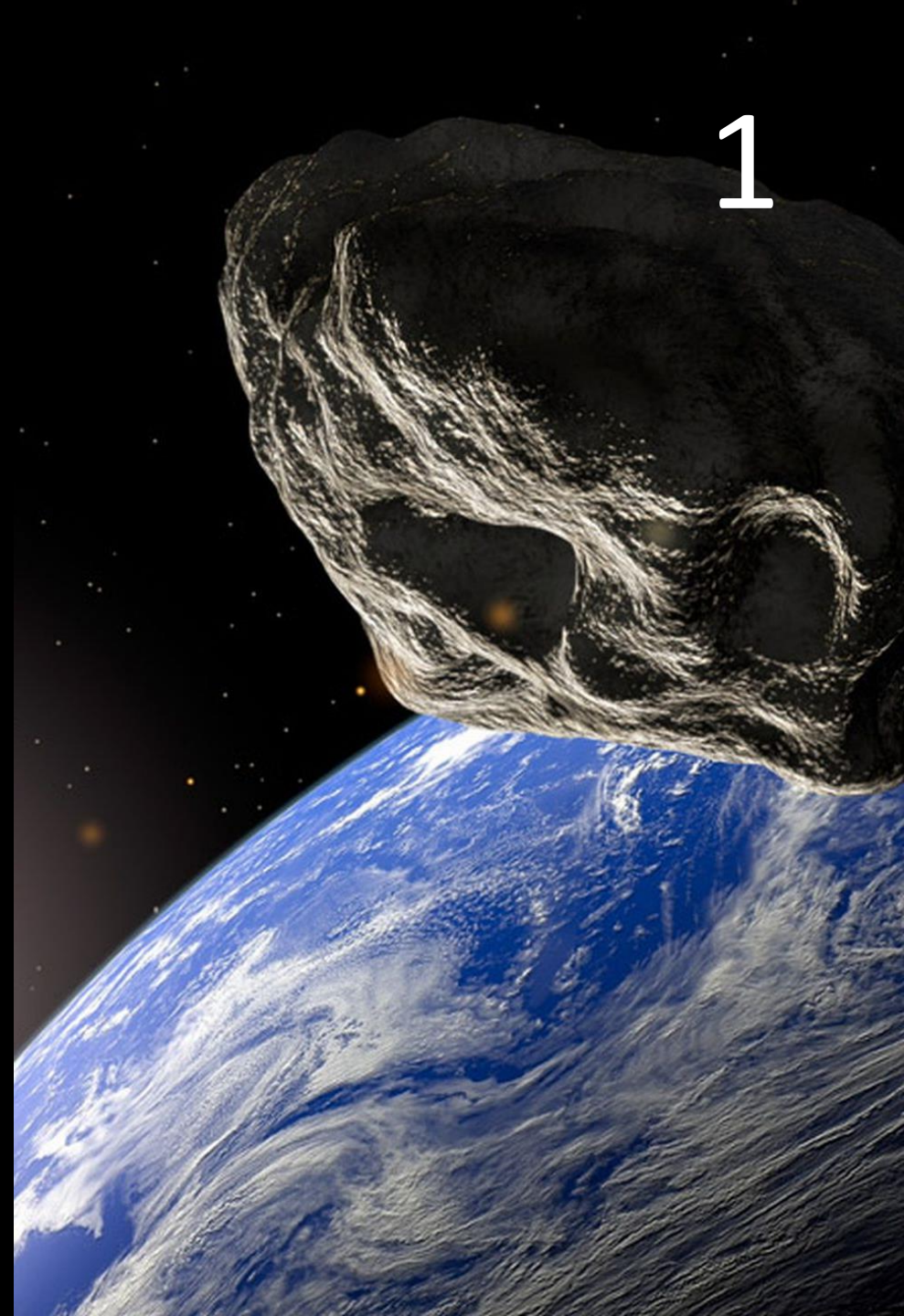
Background on Asteroids

- Class M – Metallic
- Class A – Olivine
- Class C – Carbon, Silicates



Solution

- Analyze the spectrometry data of reflected light
- Match spectrum with classes
- Improve model with future spectral data



Demo

