

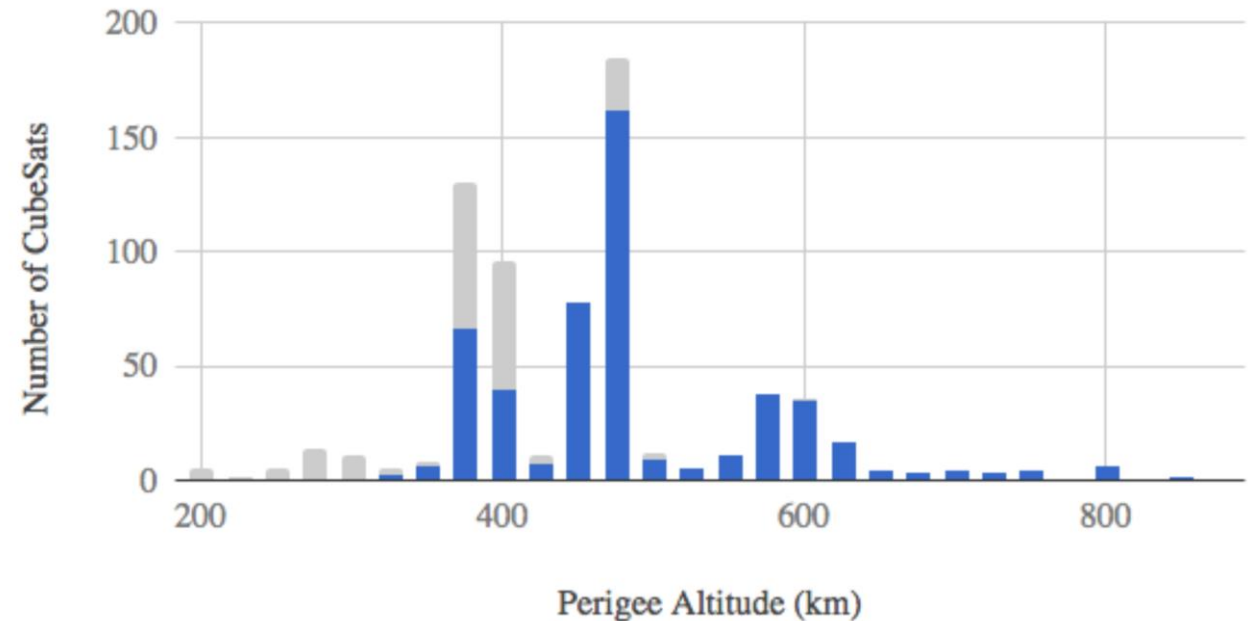
Requirements for Guidance, Navigation and Control (GNC) of Deep Space Cubesats

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Cubesats In Deep Space

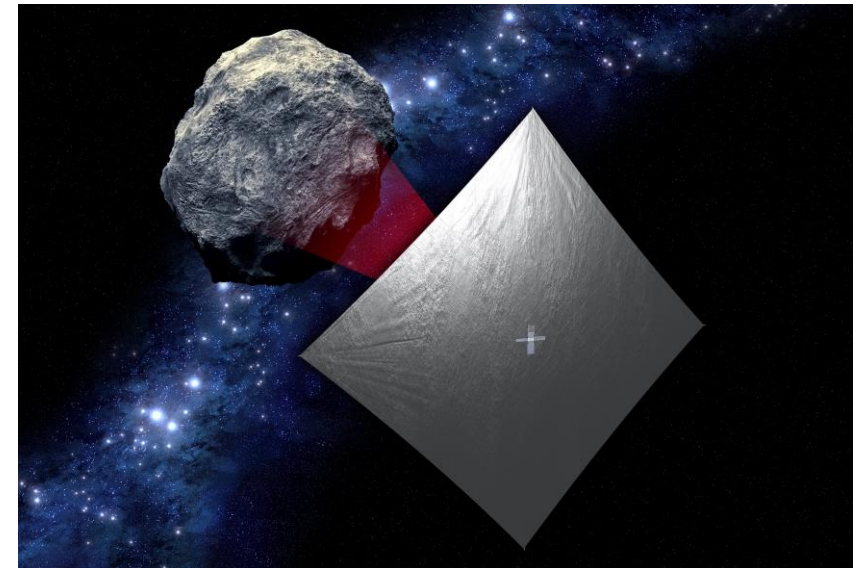
- Since 2003, 754 Cubesats launched.
- Mostly have been delivered to low-Earth orbit (LEO).
- Several planned Deep Space Cubesat missions.
- ADC+Position → GNC

Orbit Perigee Histogram (number of spacecraft launched to a given perigee altitude, decayed orbits in grey)



We'll Discuss

- Challenges of Deep Space Missions
- What are the common attitude determination and control systems (ADCS) for LEO Cubesats?
- Can we use LEO Cubesat ADC systems for these missions?
 - Position and velocity information
 - Attitude information and control
- Is fully autonomous GNC crucial?



Thank You!