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September 2021

Using Robotic Telescopes to Observe Lunar Co-Orbital Asteroids

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Citation of this paper:

Gregg, Cole R. Mr, "Using Robotic Telescopes to Observe Lunar Co-Orbital Asteroids" (2021). *Inspiring Minds – Showcasing Western’s Graduate Research, Scholarship and Creative Activity*. 159.

<https://ir.lib.uwo.ca/inspiringminds/159>

Using Robotic Telescopes to Observe Lunar Co-Orbital Asteroids

As a Master's student studying Astronomy here at Western University, my research involves an asteroid survey using remotely operated, robotic telescopes. I am looking for a unique subset of asteroids that have never been observed before. These asteroids -if they exist- would share the Moon's orbit. If discovered, they would provide researchers with the opportunity to do a long-term study on nearby (astronomically speaking!) asteroids, and potentially answer questions like whether asteroids played a role in bringing the necessities of life, like water or organic molecules, to our planet. This project also provides the opportunity to observe different types of asteroids that are quickly passing by Earth. This is exactly what happened on November 18th, 2020, when we observed a previously unknown asteroid, now designated ALA2xH. This provisional discovery has proven the capabilities of our continued survey.