



Department of Physics & Astronomy Colloquium

Discoveries in the Kuiper Belt, and how satellites will make future discoveries harder

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Abstract: The Outer Solar System Origins Survey (OSSOS) and affiliated surveys have now discovered over 1,300 new Kuiper Belt Objects (KBOs) with precisely measured orbits and known observation biases. I will discuss what those discoveries mean for the "clustered" KBOs that led to the Planet 9 theory, and discuss a new, deeper survey currently in progress on the Canada-France-Hawaii Telescope that will discover some of the smallest and most distant KBOs. Future KBO discoveries will be more and more difficult due to the commercialization of Low Earth Orbit, currently being spearheaded by the Starlink megaconstellation of satellites. Starlink has launched almost 6,000 satellites in the last four years, and now owns and operates the majority of all satellites in orbit. Dozens of companies worldwide now have plans for a total of one million satellites. These satellites reflect sunlight long after sunset, and are visible as moving stars in the night sky, increasingly disrupting stargazing and astronomical research worldwide. They also produce dangerous atmospheric pollution on launch and re-entry, increase casualty risk on the ground from re-entries, and each launch puts us closer to the runaway collisional cascade known as the Kessler Syndrome. I'll discuss what you can do to fight for regulation and safe use of satellites in orbit.

Thursday 29 February 2024, 1:30-2:45 PM Mountain Time

The talk will be on zoom. Attendance can be in person in

Science Commons SA 8003

or via zoom: <https://uleth.zoom.us/j/95324046210>

Everyone welcome!