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Author: Prof. George Zhu
York University, Canada, gzhu@yorku.ca

EXPERIMENTAL VALIDATION OF TETHERED CUBESATELLITE DEPLOYMENT BY
PARABOLIC FLIGHTS

Abstract

This paper describes the experimental validation of a tethered cubesatellite deployment by parabolic flight test. The tethered cubesatellite system includes two 1U CubeSatellites with a 100m long tape-type tether. The parabolic flight is to demonstrate the tethered cubesatellites can be deployed successfully at the designed velocity. Furthermore, by measuring the separation velocity of two cubesatellites in the parabolic flight, it reveals the internal friction is much less in the microgravity environment than the value measured on the ground.