

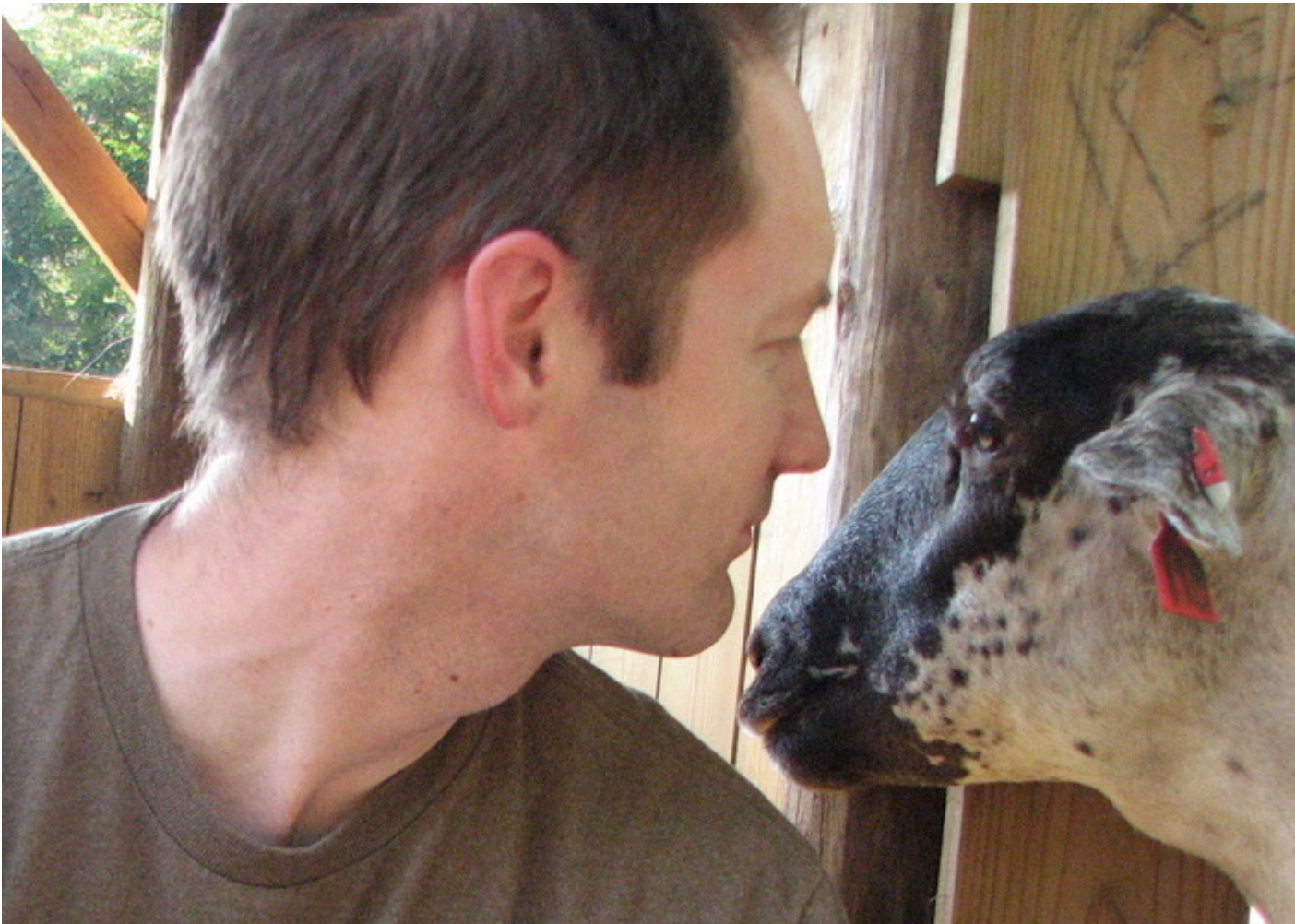
Space Robotics Verification and Validation at NRL

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ABSTRACT:

The DARPA RSGS (Robotic Servicing of Geosynchronous Satellites) mission will be the world's first operational satellite servicing vehicle when it launches circa 2021. Dr. Henshaw, the RSGS lead roboticist, will discuss RSGS capabilities, robotic operations concepts, and the algorithm and controls design needed to enable them. He will discuss NRL space robotics test environments and validation and verification strategies, including the challenges of verification and validation of complex robotic spacecraft.

BIO:



Glen Henshaw is the Naval Research Lab's senior space roboticist and the chief

roboticist for DARPA's Robotic Servicing of Geosynchronous Satellites (RSGS) program. He has been instrumental in developing the technology, concepts of operations, and use cases for robotic satellite servicing for the US Department of Defense, which will culminate in the first launch of an operational satellite servicing vehicle in 2021. He is also the PI for multiple NRL research programs, notably the Meso-scale Robotic Locomotion Initiative (MeRLIn), which aims to develop a highly agile miniature quadruped robot. His research interests include robotic motor learning, nonlinear controls, robotic kinematics and dynamics, and robotic satellite servicing concepts and technologies. He received his PhD in aerospace engineering from the University of Maryland in 2003.
