

## **Modeling NASA/SLR Multi-Photon Receive Energies**

Van Husson (1), Frank Whitworth (2), Tom Oldham (3), Davis Johnson (4)

(1) Peraton/NASA Greenbelt, USA; (2) Peraton/NASA Greenbelt, USA; (3) Peraton/NASA Greenbelt, USA;

(4) Peraton/NASA Greenbelt, USA

The worst type of SLR systematic errors are range (e.g. frequency) and/or elevation (e.g. tropospheric) dependent biases, because if unmodeled they can impact scale estimates and SLR station coordinates of the International Terrestrial Reference Frame (ITRF) [Drożdżewski, 2021]. In this paper, we will discuss a case study of modeling receive signal strength from NASA SLR multi-photon systems. We will discuss the pros and cons including the potential impact on normal point data quality. We will also try and answer a long-standing question from the data analysts. Is NASA SLR receive signal strength elevation dependent?