

# **2015 ILRS Technical Workshop**

## **5.2 Impact of range biases on global reference frames**

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Abstract text:

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In the analysis of SLR observations, it is common to estimate range biases beside other geodetic and geophysical parameters. The range bias parameters (time period, magnitude, etc.) are compiled and coordinated by the ILRS analysis working group and documented in the ILRS data handling file. Nevertheless, the impact of range biases on geodetic and geophysical parameters such as the geodetic datum of global reference frames is not fully understood yet.

In this paper, we are investigating the impact of station-wise estimated range biases on global reference frames and their geodetic datum. In order to avoid correlations between the range biases and orbit parameters in one common adjustment, we applied a refined analysis algorithm and finally compare the estimated time series of station-wise bias parameters with geophysical models and range biases to other spherical satellites.

The quantification of the impact on the global reference frame is mainly based on a comparison of the "biased" frame with the standard ILRS/AWG solution for ITRF2014.