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### **Detection of various SLR systematic errors for mm accuracy**

The satellite laser ranging technique has a strong advantage in measuring the absolute distance over other geodetic techniques. However, in order to meet the goal set by GGOS, that is 1 mm reference frame accuracy and 0.1 mm/year stability, every station has to further reduce error sources that affect its station coordinates at the 1 mm level. Random errors average out with a number of observations, but systematic errors map into geodetic products. A post-fit residual data set from one-year, six-satellite combined precise orbit determination by software 'c5++' is examined to see if there are any correlations with key parameters, such as intensity, calibration, time, and other environmental and associated variables. We have detected a number of cases where a high correlation is observed. This study is aimed to help laser ranging stations to realise and eliminate systematic errorsources. This presentation is closely linked with Otsubo's booth at the clinic session.