

# 17<sup>th</sup> Workshop Summary, Sessions # 7, 8

## Improving Ranging Accuracy, Calibration and Local Ties

L.Grunwaldt, I.Prochazka

### ■ Accuracy and Calibration (2)

- the precision & accuracy of SLR stations is steadily improving
- High replate photon counting SLR to “correct” target and correct calibrations are prerequisite for high accuracy SLR data
- No “magic touch” is existing for perfect calibration, the recommendations made earlier are still highly actual
- Alternative approach (“time deviation”) to the LR precision has been applied to SLR data, the station limiting precision for various targets was demonstrated

### ■ Technology (3)

- Development of Riga ET - 3 ps RMS, improved linearity, stability and user friendly interface
- New technologies for 0.1 mm precision and stability laser ranging developed and demonstrated indoors (Start & Timing & SPAD)

### ■ Standardization (1)

- ...of HW for existing SLR stations questionable, for upcoming systems may be helpful. SW procedures under consideration.

### ■ Local ties (2+1)

- Wettzell shows excellent (~ mm) stability over >25 years
- sub-mm ties are difficult but expected in a near future.

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- **Key result in session**

- 0.1.. 0.2 mm SLR data precision limit achieved at Graz

- **In other sessions**

- Ajisai & Blits spin studies by Daniel Kucharski
- APOLLO LLR results by Tom Murphy
- LRO one way LR by Jan McGarry
- Compass & “1m network” by Zhang Zhongping
- “new coating” CCR by V.Vasiliev.....