Session 1 wrap up

Contribution to Global Geodetic Observing System – A 2020 Perspective

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Session 1 wrap up

- just before: keynote talk by T. Herring
- 8 presentations + 2 posters
- broad variety of presentation topics
- content covers SLR contributions to GGOS, inter-technique comparisons, future developments, and local ground surveys
- first oral block was focused on **SLR in the context of the Global Geodetic Observing System (GGOS)**
- second oral block was focused on **SLR synergies with other geodetic space techniques and local ground surveys**
Three main categories of noise dominate space geodetic measurements

- Instrumental noise → measurement noise due to technical issues (laser, reflector, etc.)
- Environmental noise → orbit perturbations, etc.
- “Earth” noise → mostly geophysical signals

GGOS BPS committee is in charge to define essential geodetic variables (EGVs); example: pole coordinates

DOIs for geodetic data would be beneficial for all (users and data providers)

GGOS aims the integration of gravimetry and geometry

SLR is a tool to realize GGOS since parameter interactions can be studied (multi-satellite multi-parameter solution → multi-technique multi-parameter solution)

Unification/extension of SLR activities in South America (4 SLR stations available)
SLR synergies with other geodetic space techniques and local ground surveys

- SLR significantly contributes to *identify/calibrate/overcome* systematics in other geodetic space techniques
- **Space ties** should be used to strengthen the connection between the techniques
- Current trends within the ILRS: lower energy (SLR systems), higher repetition rates, shorter NP intervals for **100+ SLR-tracked satellites** in 2018
- "**Mixed mode**" observations of VGOS/legacy network → continuity is ensured
- TRF improvements up to 20% and EOP improvements up to 5% can be achieved by **improving the network** (8 additional/planned stations simulated)
- **Improved alignment** of local ground surveys to the ITRF is necessary
- In future, anonymous FTP access to CDDIS **no longer possible**!