The Role of Satellite Laser Ranging in the Global Geodetic Observing System
Session Summary
Chairs: Erricos Pavlis and Horst Mueller

The third session of the workshop, entitled “The Role of Satellite Laser Ranging in the Global Geodetic Observing System", intended to highlight the central role that SLR plays within GGOS. The session comprised invited and contributed presentations on the significant role of SLR in support of GGOS' goals.

In the opening presentation, R. Gross summarized the main contributions of SLR to the three pillars of geodesy for GGOS. Gross gave examples of the state-of-the-art in the definition of the origin and scale of the ITRF, the long history of SLR series of EOP, the longest of all space techniques, and mass load variations from long wavelength harmonics time series derived from SLR, with comparisons to other techniques (GRACE, GPS, hydrology, etc.).

The second presentation, by C. Sciarretta, demonstrated that the SLR technique evolves and strives to deliver new products that fulfill requirements of the user community. In this case, the focus was on the daily delivery of fresh EOP estimates that can be used to constraint the EOP forecasting process of the NEOS service of IERS.

Following the presentation of this new ILRS product was a talk by T. Springer on ESA’s efforts to harmonize the reduction of GNSS and SLR data with a common analysis package for a combined and consistent estimation of geophysical parameters required by GGOS.

S. Schillak followed with a comparison between GPS- and SLR-derived time series of coordinates over a period of eleven years. The results indicated the general consistency of the results at the few millimeter level. It also demonstrated how well the two techniques compare at sites with data of exceptional quality, and how they can be used to identify problems in either technique when they are co-located and properly and accurately surveyed.

In the final presentation, E. C. Pavlis showed the results of optimization studies in designing the future global geodetic networks that will support GGOS. In particular, the talk focused on the role of SLR and the possible products to be delivered. The presentation stressed the stringent requirements of GGOS and how the synergy of the geodetic techniques will meet this challenge.

The session concluded with two posters. C. Noll presented a global map illustrating the four networks of the space techniques as they exist today. In the second poster, F. Deleflie showed an example of how ILRS can make use of the Virtual Observatory on the web, following the example of astronomy.