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**GR 8: Main talk: Experimental Gravitation**

Time: Tuesday 10:30–11:15

Location: SPA SR220

**Invited Talk** GR 8.1 Tue 10:30 SPA SR220  
**Measuring the frame-dragging effect with LAGEOS, LARES and other satellites** — •ROLF KOENIG — GFZ, Oberpfaffenhofen

During recent years quite some efforts are made to measure the frame-dragging effect by Earth's rotation or the Lense-Thirring effect by evaluating Satellite Laser Ranging (SLR) tracking data to the LAGEOS satellites and newly available gravity field models coming up with the GRACE mission. The accuracy of these attempts can be assessed at

about 10 %, the new LARES mission is supposed to improve this to about 1 %. The technique of how this can be done and various error aspects of it are outlined and discussed. In particular the influence of the gravity field model, the solid Earth tides model, and the ocean tides model are illuminated. On the example of the GALILEO constellation the impact of radiation pressure mis-modelling is demonstrated. Also recent results based on up-to-date gravity field models are compared to earlier results.