

**Grasse Stanford chronometer modeling: Laboratory tests and correction to apply on fixed SLR system and FTLRS before 2004 year**

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In Grasse Observatory where three laser ranging systems have been simultaneously operated and collocated during some periods, both of them (FTLRS and SLR station 7835) were equipped with Stanford SR620 chronometer and LLR system with very proven accurate Dassault Timer.

The nonlinearity effects of Stanford chronometer have been suspected in ILRS community for many years and, similarly to others groups, we achieved a very complete study on this device in quite real conditions with respect to Dassault event timer as a reference to be as accurate as possible and derive models.

We describe in this paper method, test procedures and results, finally we propose today to AWG analysts a clear table of corrections to apply on FTLRS and Grasse SLR data along the years from 1995 to 2005.