Time Transfer by Laser Link T2L2 – Experimental campaign (9:00 – 9:15)

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T2L2 (Time Transfer by Laser Link), developed by both CNES and OCA permits the synchronization of remote ultra stable clocks over intercontinental distances. The principle is derived from laser telemetry technology with dedicated space equipment deigned to record arrival times of laser pulses at the satellite. Using laser pulses instead of radio frequency signals used in classical time transfer techniques (GPS, TWSTFT), T2L2 permits to realize some links between distant clocks with time stability of a few picoseconds and accuracy better than 100 ps.

From the launch in 2008, several campaigns were done to demonstrate both the ultimate time accuracy and time stability capabilities. It includes some experiments implemented in collocation to directly compare T2L2 time transfer residuals with the direct link between the stations, and also some ground to ground time transfer between ultra stable clocks.

After reminding the principle and the status of the project, this presentation will present the results of a campaign made at OCA between MeO and FTLRS and another one installed at Tahiti between the Moblas 6 station and FTLRS.