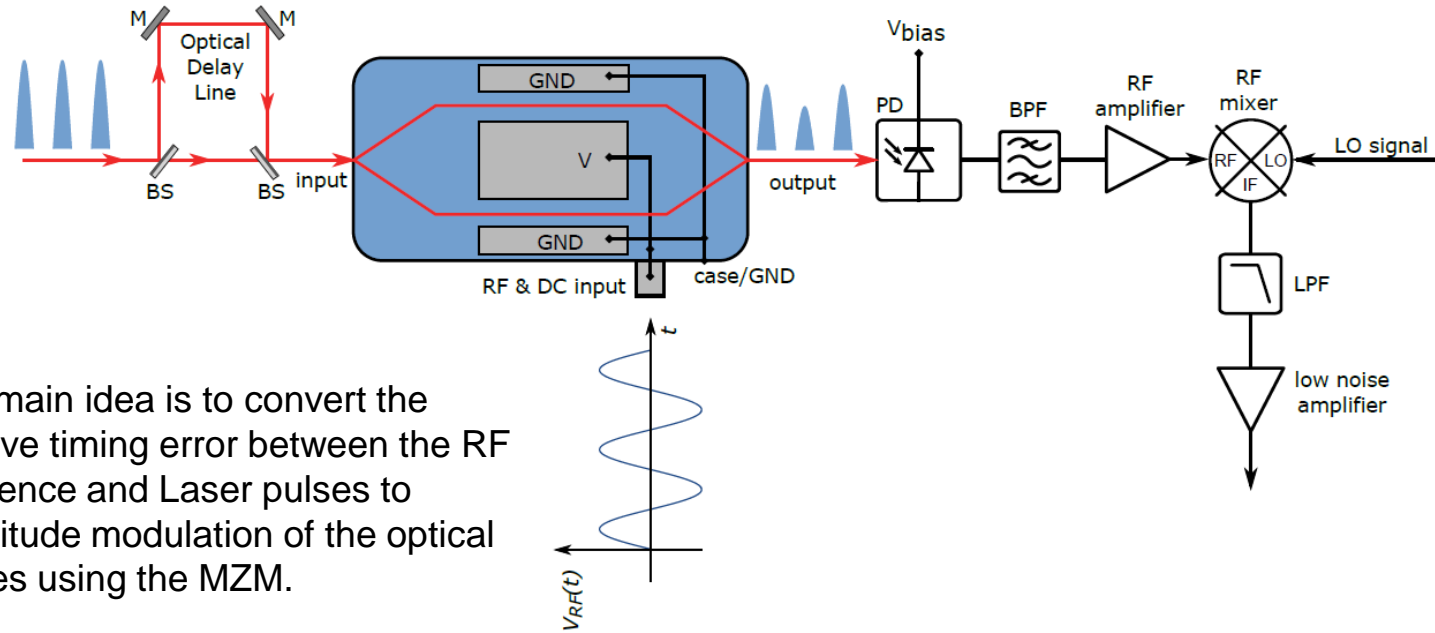


Speed Poster.

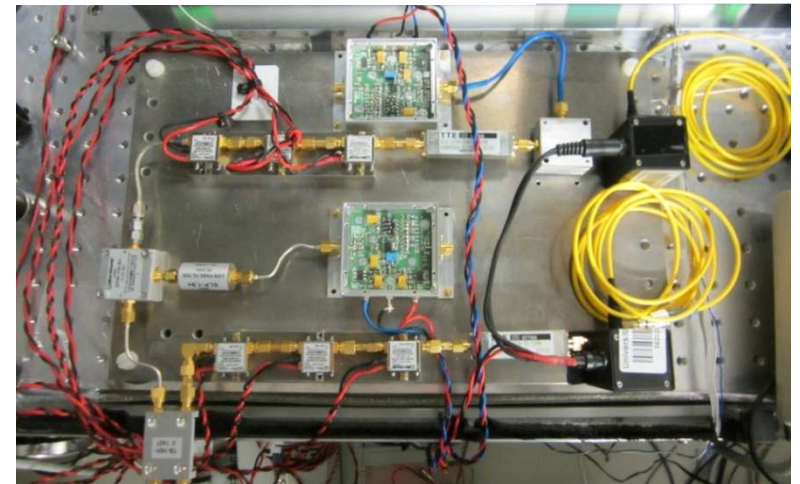
Advanced Laser Synchronization at REGAE.

Mikheil Titberidze
4th ARD ST3 Workshop
Berlin, 13-17 July 2016

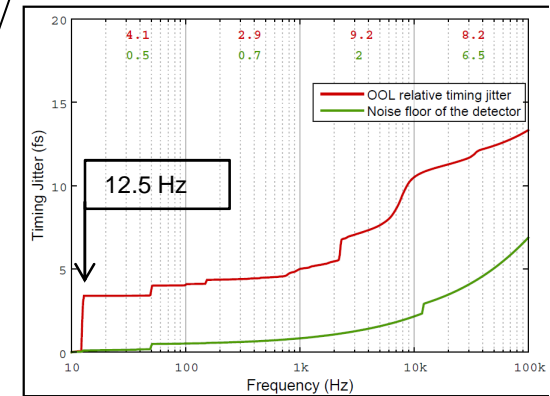
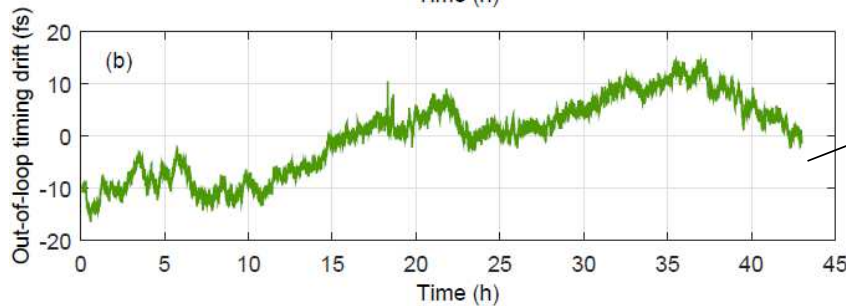
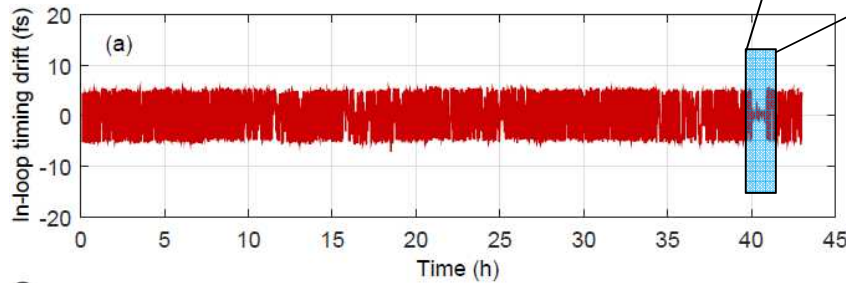
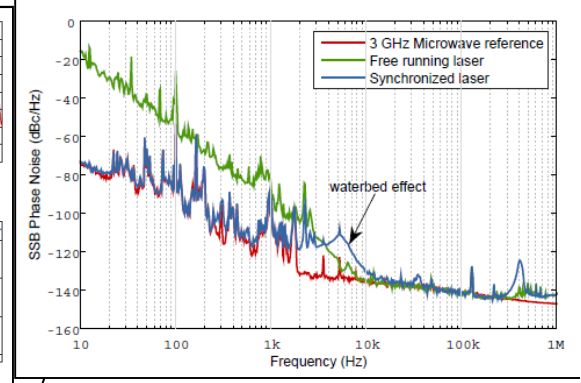
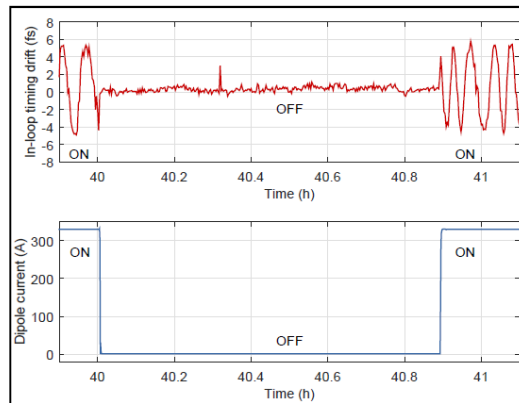
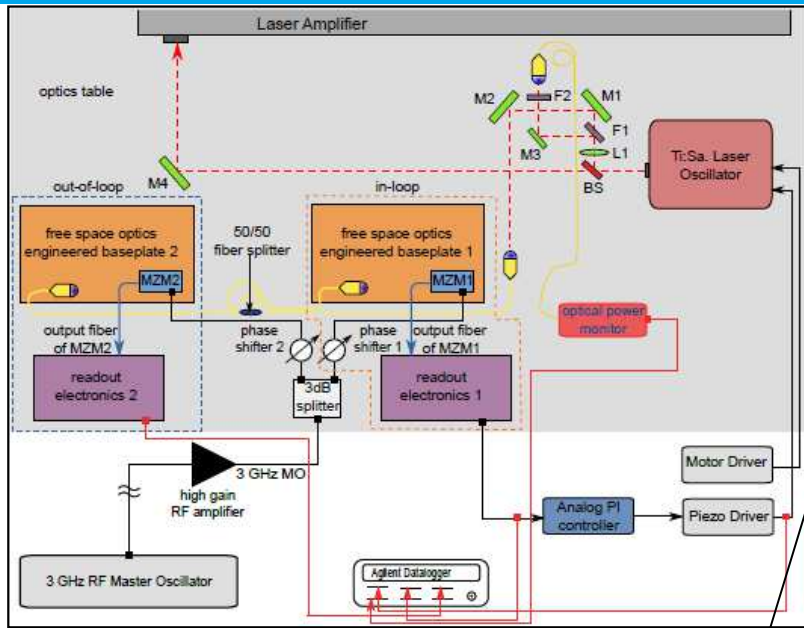
Speed Poster.



- > The main idea is to convert the relative timing error between the RF reference and Laser pulses to amplitude modulation of the optical pulses using the MZM.



Speed Poster.



- The locking bandwidth of the laser is ~ 2 kHz.
- Timing jitter measured out-of-loop is: ~ 10 fs rms in the BW of [10Hz to 100 kHz].
- Peak-to-Peak timing drift of 31 fs has been measured over 43 hr.
- There is more room for improvement.

