

## Topical Workshop on Diagnostics for Ultra-Low Emittance Rings (TW-DULER)



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Contribution ID: 10

Type: **Oral Contribution**

# Fast Quadrupole Beam Based Alignment Using AC Corrector Excitations

*Thursday 19 April 2018 14:30 (30 minutes)*

The 10kHz fast acquisition BPMs together with an AC excitation of the corrector magnets allow to speed up the beam based alignment process at ALBA. The former approach relies on software synchronization and tango device servers to execute a series of DC corrector magnets and quadrupoles settings designed to avoid the quadrupole hysteresis effects. The approach that we present here is simpler, gives the same level of accuracy and precision and speeds up the measurement by a factor 30. The total measurement time has changed from 5 hours to 10 minutes.

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**Session Classification:** Beam Dynamics and Procedures