



Orchestration and real-time Bayesian estimation for drifts mitigation and improved coherence time



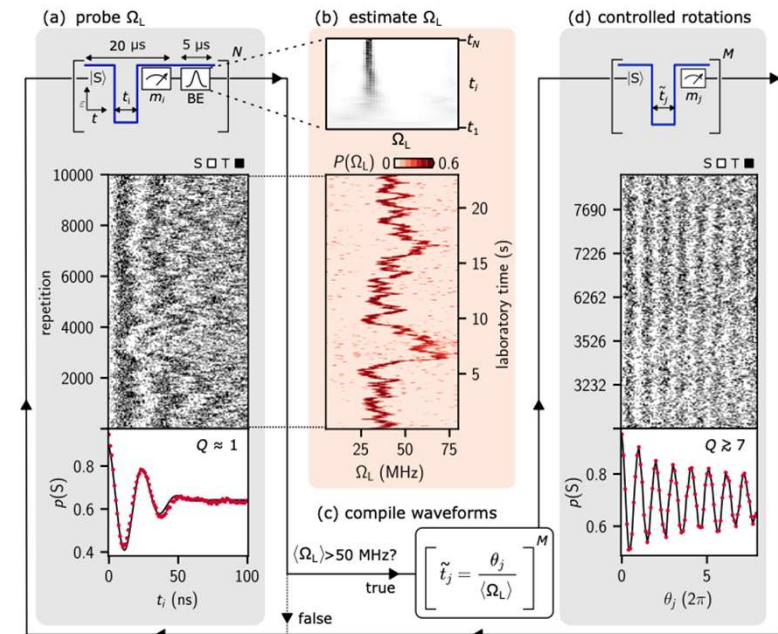
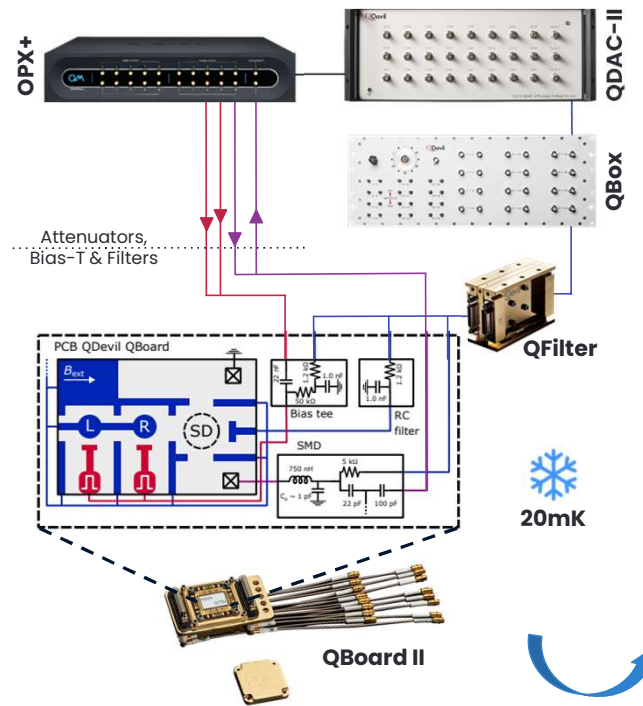
“The OPX’s fast feedback and unique real-time processing capabilities were critical for our experiment. Combining these with the OPX’s intuitive programming and QM’s state-of-the-art cryogenic electronics allowed us to do something that we have dreamt of doing for years.”

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The **OPX+** performs real-time Bayesian estimation of the Larmor frequency and corrects drifts during the quantum sequence, *mitigating noise and improving the qubit coherence*. The **QDAC-II** provides the lowest-noise DC and low-frequency signals, which are handled (**QBox**), filtered (**QFilter**) and routed to the **QBoard-II** holding the sample in the cryostat.



Source: [arXiv 2308.02012](https://arxiv.org/abs/2308.02012)