

# High-Q0 treatment development in 800 MHz 5-cell elliptical cavities

*Monday 26 August 2024 16:00 (2 hours)*

High-efficiency sub-GHz elliptical superconducting RF cavity are a critical enabling technology for multiple upcoming accelerator development projects such as for the Powerful Energy Recovery Linac for Experiments (PEARLE), the Future Circular Collider (FCC) FCC Booster, and for a certain realization of the FCC Collider ring. The ambitious quality factor and gradient requirements of these projects require strong R&D programs applying advanced surface processing techniques such as mid-T baking to 800 MHz cavities. We report the current achievements of our current high-Q development program including the first mid-T baking of an 800 MHz 5-cell elliptical niobium cavity compatible with PEARLE and FCC applications.

## Footnotes

## Funding Agency

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