Twelfth Continuous Wave and High Average Power RF Workshop

1 mW CERN

2 MW CERN

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Addition of a 3rd 500MHz system to NSLS-II

Wednesday 14 September 2022 14:00 (25 minutes)

The NSLS-II light source has been operating since 2015 with two 500 MHz Superconducting cavities fed by Klystron based amplifiers providing in up to 1.8 MV of accelerating gradient and up to 310kW of RF power per system. A third 500 MHz system project was completed and installed in 2021 consisting of a superconducting cavity assembled in-house and a 320 kW cavity combined Solid State amplifier designed and built in industry. The project included a significant upgrade of the cryogenic helium distribution system to bring LHe to the new cavity location in a second RF straight. The details of the new system will be described along with our experience in commissioning and with user operations over the past 16 months with the new systems.

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