

# Recent results of the high gradient S-band accelerating module for FERMI energy upgrade

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

FERMI is the seeded free electron laser (FEL) user facility at Elettra laboratory in Trieste, operating in the VUV - soft X-ray spectral range. In order to extend the FEL radiation to shorter wavelengths, an energy increase from 1.5 GeV to 2.0 GeV is required in the linear accelerator (linac). This result is achievable by replacing the present old sections with the newly designed accelerating sections that can work at high gradient with lower transverse wakefields. A new high-gradient (HG) module was built and installed at the FERMI linac. We report here the recent experience on the conditioning and the results on the e-beam energy gain in operation.

## Footnotes

## Funding Agency

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