

Beamlines of the EuPRAXIA@SPARC_LAB X-ray FEL facility

Monday, 16 June 2025 13:00 (20 minutes)

The Free-Electron Laser facility of the EuPRAXIA@SPARC_LAB infrastructure is driven by an electron beam with 1 GeV energy, produced by an X-band normal conducting LINAC followed by a plasma wakefield acceleration stage, and consists of two beamlines.

The AQUA beamline aims at delivering selectable polarization photons in the 3-4 nm, water window wavelength range, by means of APPLE-X permanent magnet undulators.

The second beamline, called ARIA, is going to operate in a High Gain Harmonic Generation seeded configuration, able to produce coherent and tunable pulses with applications in the 50-180 nm wavelength range.

Performance associated to both beamlines is investigated and discussed.

Primary author: NGUYEN, Federico (ENEA)

Presenter: NGUYEN, Federico (ENEA)

Session Classification: Beamlines and Facilities