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Status of the seeding upgrade for FLASH2020+ project

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In the framework of the FLASH2020+ project, the FLASH1 beamline will be upgraded to deliver seeded FEL pulses for users. This upgrade will be achieved by combining high gain harmonic generation and echo-enabled harmonic generation with a wide-range wavelength-tunable seed laser, to efficiently cover the 60-4 nm wavelength range. The undulator chain will also be refurbished entirely using new radiators based on the APPLE-III design, allowing for polarization control of the generated light beams. With the superconducting linac of FLASH delivering electron beams at MHz repetition rate in burst mode, laser systems are being developed to seed at full repetition rates. In the contribution, we will report about the progress of the project.

Funding Agency

Footnotes

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Yes

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