## IPAC'24 - 15th International Particle Accelerator Conference



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## Mode-locked soft x-ray FEL generation based on HHG seed

Monday, 20 May 2024 16:00 (2 hours)

High Harmonic Generation (HHG) has been a brilliant and successful technique for the generation of natural mode-locked attosecond laser pulses in the VUV regime. It's promising to employ the HHG laser as an external seed in a harmonic-generation FEL facility for the generation of high power short wavelength mode-locked FEL pulses. In this paper we propose a method to try to make this happen. And we will address some critical problems. The possible performance will also be given through numerical simulations.

## **Footnotes**

**Funding Agency** 

Paper preparation format

## Region represented

Asia

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Lasers