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High-power and femtosecond free-electron laser pulse generation with chirped pulse amplification in EEHG

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Ultrafast science has developed rapidly nowadays thanks to the development of optical and laser technologies, like chirped pulse amplification and high-harmonic generation. In this work, a simulation has been performed to generate high-power femtosecond free-electron laser pulses with chirp pulse amplification in echo-enable harmonic generation. Numerical modeling shows that the peak power reaches tens of gigawatts and pulse duration is about several femtosecond.

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Footnotes

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Yes

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