

Title	Few-cycle oscillator pulse train with constant carrier-envelope- phase and 65as jitter
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Abstract	We report on an octave-spanning Ti:sapphire laser oscillator stabilized to carrier-envelope-offset frequency zero, generating a pulse train with constant field profile for every pulse. Stabilization is realized using an extended self-referenced locking scheme enabling to lock the carrier-envelope-offset phase with less than 65 attosecond rms timing jitter. The stabilized system features a pulse repetition rate of 100MHz with pulses as short as 4.5 fs and 220mW average output power. With this laser system it was possible for the first time to demonstrate a spectral interference pattern of 10^{11} oscillator pulses in
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