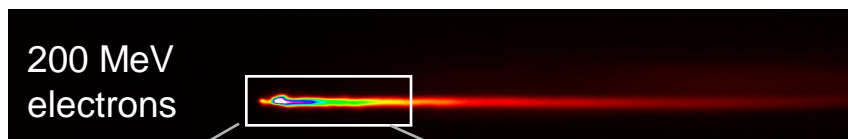


Betatron oscillations in electron beams produced from 200 TW laser interactions

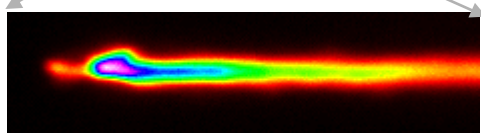
T. Matsuoka, V. Chvykov, Y. Horvitz, G. Kalinchenko, K. Krushelnick, A. Maksimchuk, S. Reed, P. Rousseau, V. Yanovsky

Electrons accelerated in the plasma - "wobble" due to transverse electric field in the focal region - Betatron Oscillations

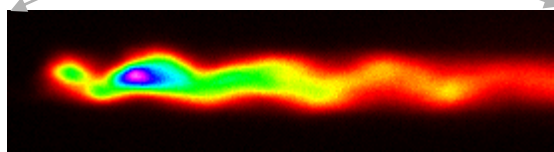
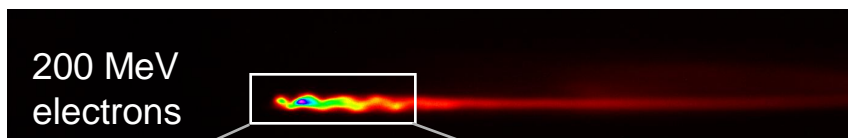
Electron density $1.1 \times 10^{19} \text{ cm}^{-3}$



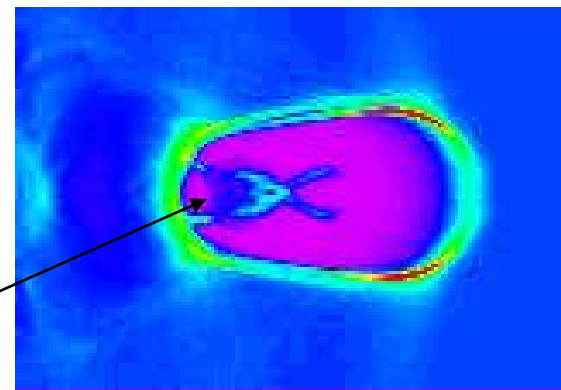
Emission angle
~ 10 degrees



Electron density $1.0 \times 10^{19} \text{ cm}^{-3}$



These are evident in simulations as well as in energy spectra of accelerated electron beams



Electrons wiggling in laser field due to Betatron oscillations (simulation using OSIRIS)



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