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Betatron radiation from electrons accelerated in laser-produced plasma channels

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The betatron radiation from electrons accelerated in laser-produced plasma channels typically extends in the X-ray region, with a broad synchrotron-like incoherent spectrum.
Nevertheless the radiation spectrum and the degree of coherence of the betatron radiation can be efficiently modified according to different laser-plasma interaction schemes.
The betatron radiation seems to be a good candidate both to be exploited as brilliant ultra-short X-ray source and for diagnostics of the electrons accelerated in the plasma channels.

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