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Beam shaping using an ultra-high vacuum multileaf collimator and emittance exchange beamline

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A multileaf collimator comprising many individually controlled blades has been used to impose predefined transverse beam shapes to an electron beam. Afterwards transverse-to-longitudinal mapping transforms this shape into a longitudinal one. This technique opens a wide field of applications using individually tailored longitudinal beam profiles.

Footnotes

Funding Agency

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