Development of High-Intensity Elliptic Charged-Particle Beams

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Hight-intensity elliptic charged-particle beams have wide application in vacuum electronics, particle accelerators, high-energy physics research, and other fields. Theory, simulation and design of the generation, acceleration, and transport of the elliptic charged-particle beams are discussed. Experimental efforts on the demonstration of a high-intensity elliptic beam are described. Applications of high-intensity elliptic electron and ion beams are discussed.