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Controlling Beam Halo-Chaos via Time-Delayed Feedback

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Abstract: The study of controlling high-current proton beam halo-chaos has become a key concerned issue for many important applications. In this paper, time-delayed feedback control method is proposed for beam halo-chaos. Particle in cell simulation results show that the method is very effective and has some advantages for high-current beam experiments and engineering.

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Key words: high-current proton beam, halo-chaos, time-delay feedback control, particle in cell

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