RF techniques for bunched/pulsed slow extractions from synchrotrons

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Radio-frequency (RF) techniques can be utilised to provide a tailored time structure to slow extraction users. In this contribution, a manipulation known as RF phase displacement is presented as a way of satisfying two different beam requests: (i) ~millisecond-scale spills for FLASH therapy/Radiation-to-Electronics users, and (ii) ~second-scale spills with nanosecond bunching for a dark-matter search experiment known as SHiP. Simulation results and measurements are compared in order to characterise the technique.

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