

Tailored excitation signals for RFKO

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The excitation signals used in Radio Frequency Knock Out (RF KO) resonant slow extraction influence the temporal structure of the resulting spill. Therefore, a careful design of excitation signals is crucial to prevent artificial ripples in the spill caused by the excitation. At the same time, tailored signals can suppress ripples introduced by external sources such as power converters.

This contribution presents simulation studies which yield insight into the particle dynamics of the excited system and lead to the proposal of an improved excitation method. The new method is experimentally compared with other commonly applied techniques, explaining their respective advantages and drawbacks.

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