

# RECENT DEVELOPMENT OF THE IMPACT PARALLEL BEAM DYNAMICS CODE SUITE

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## Abstract

In this paper, we report on recent development of new capabilities to the IMPACT parallel beam dynamics code suite. These new capabilities include modeling multiple charge state beam, modeling ion beam formation and transport in LEBT, horizontal/vertical bend, higher order multipoles, rf traveling wave structure and wake fields. We will present physical models and computational methods for these new capabilities. Some application examples will also be presented in this paper.

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