HOM MAPS OF RF CAVITIES FOR PARTICLE TRACKING CODES

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Abstract

We present our recently developed capability for generating High-Order Mode (HOM) maps of rf cavity fields for use in particle tracking code-based simulations. We use VORPAL field data as a starting point, and follow the approach of* to produce the maps that are subsequently incorporated into the MaryLie/IMPACT and Synergia frameworks. We present and discuss the results of applying this new modeling tool to crab cavity simulations.

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