

Building the injection complex damping ring longitudinal coupling impedance model

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Injection complex is a source of electron and positron beams for both BINP colliders: VEPP-2000 and VEPP-4. Now it covers all consumer needs in beams, however, future BINP projects require operating with higher intensity beams. For this reason building the injection complex damping ring longitudinal coupling impedance model has become important. This work aims at collective effect studies: impedance of vacuum chamber elements calculation and comparison it parameters with beam spectrum, potential-well distortion research; measurements and simulation of beam regrouping from 16th bunch from linear accelerator into 1 single bunch in 1st harmonic damping ring cavity.

Primary author: BALAKIN, Vitalii (BINP SB RAS)

Co-authors: Mr BERKAEV, Dmitriy (BINP SB RAS); Ms OKULOVA, Sofya (LLC "Scientific devices and systems")

Presenter: BALAKIN, Vitalii (BINP SB RAS)

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