**BEAMDYN - A Program for Calculation of Particles Dynamics in the Strong-Focusing IHEP Accelerator**<sup>\*</sup>, <u>A. ASSEEV</u>, M.Yu. GORIN, IHEP, Protvino, Russia - The program allows one to simulate both the motion of an unperturbed beam and its dynamics at interaction with internal targets that is necessary for calculations of the nonresonant slow extraction of accelerated protons by bent crystals. Distribution of particles in the original beam as well as parameters of the equipment responsible for the beam dynamics during extraction can be easily changed. A control of particle losses on the vacuum chamber wall and apertures of the extraction equipment is possible. The program can be used for optimizing the existing and development new beam extraction methods.

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