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Current Status of the Beam Dynamics Simulations for the HBS Drift Tube Linac

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As various experimental reactors in Europe are already or will be decommissioned over the next years, new neutron sources will be necessary to meet the demand for neutrons in research and development. The High Brilliance Neutron Source is an accelerator driven neutron source planned at the Forschungszentrum Jülich. The accelerator will accelerate a proton beam up to an end energy of 70 MeV, using normal conducting CH-type cavities. Because of the high beam current of 100 mA, the beam dynamics concept requires special care. In this paper, the current status of the beam dynamics for the drift tube linac is dicsussed.

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Footnotes

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