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Electronic test bench for the validation of BPM and Time of Flight acquisition systems

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MYRRHA (Multi-Purpose Hybrid Research Reactor for High-Tech Applications) aims to demonstrate the feasibility of high-level nuclear waste transmutation at industrial scale. MYRRHA Facility aims to accelerate 4 mA proton beam up to 600 MeV.

Beam Position monitors are key elements in many accelerators. for instance, once BPMs are installed along a linear accelerator or a storage ring, they remain inaccessible for any validation of updated or rejuvenated electronics. this paper addresses this issue with the realisation of an electronic test bench simulating the outputs signals of BPM electrodes for a given beam energy, phase and position. the bench is realized for MYRRHA BPMs and it offers simulated beams with a position precision down to 50 μ m and phase precision down to 0.5° on a wide range.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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