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Pulsed Power Calibration and Test Benches at Epure

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The 1st radiographic axis of Epure, shared French and British facility, is a linear induction accelerator, a complex system with parts standing out as more critical. Those parts are tested and calibrated on dedicated benches. Two such benches are described here.
The beam evalauation is essential to the right performance of the whole machine. To have good quality assessment of beam relevant characteristics, we benefit on one hand, from both good quality initial conception and built of Beam Position Monitors, on the other hand, from newly developped and precise test benches. Assessment of the measurements quality and reliability is presented.

Another critical component is the magnetic material used as a core for inductive insulation of the accelerating cells. Full characterization of the B-H hysteresis curves of those cores requires a specific test bench, able to reach high frequencies and large magnetization swing, in order to meet both ease of use to follow core production needs and the electrical requirements of an accelerating cell. Qualification methodology is presented.

Primary author: Mr GEORGES, Alain (CEA)

Co-authors: Dr BERNIGAUD, Virgile (CEA); Mr KRANZMANN, Julien (CEA); Mr NICOLAS, Rémi (CEA)

Presenter: Mr GEORGES, Alain (CEA)

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