

Preliminary metrological characterization of the Fast Digital Integrator FDI-V5

([L. Fiscarelli](#), [P. Arpaia](#), [L. Walckiers](#))

Recently, a first prototype of the version-five Fast Digital Integrator was debugged and tested. The instrument was conceived to further enhance the state-of-art integrator for magnetic measurements. In particular, the throughput of the data transfer communication was improved by revising the PXI interface and the data transfer mode. The auto-calibration scheme was redesigned and a new on-board programmable 1-ppm-accurate voltage source implemented. The first results of the metrological characterization are presented and discussed. In particular, the performances of the instrument in high-precision absolute field measurements are reported.