Abstract
This poster describes the current fast wire-scanner devices installed in circular accelerators at CERN with an emphasis on the error studies carried out during the last two runs. At present the wire-scanners have similar acquisition systems but are varied in terms of mechanics. Several measurement campaigns were performed aimed at establishing optimal operational settings and to identify and assess systematic errors. In several cases the results led to direct performance improvements while in others this helped in defining the requirements for new detectors.

Conclusion
Wire-scanners are deployed at CERN in the LHC and all its injector chain and need to cover a large range of beam characteristics (size, energy and intensity). Actions have been taken to correct systematic errors using calibration techniques and defining empirical optimal ranges with respect to intensity and photomultiplier gain. Some improvements are still needed for the SPS to achieve the expected accuracy and precision. A new generation of rotational wire-scanner is now also under development and a prototype will be installed in SPS for the next run (2014). Mechanical uncertainties with the new design have been thoroughly studied. It will use an optical position sensor to replace the potentiometer, with diamond detectors considered to replace the photomultipliers.