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HYDROSTATIC LEVELLING SYSTEM GOING MOBILE

The LHC Collimator Survey Train has already shown that automated survey measurements in the LHC are technically feasible. Nevertheless many constraints apply when making automated measurements in an accelerator environment. The research of adapted measurements techniques and strategies is an essential part in the development process of a new generation survey train.

From the automation point of view, the measurements in the vertical plane are particularly challenging and one solution would be the use of a Hydrostatic Levelling System. They are frequently used in high precision monitoring applications but with a few compromises a mobile and very flexible version can be build. This paper describes the approach, development and tests of a mobile HLS which is able to cope with the constraints and boundary conditions given by the LHC.

Summary

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