Measurement challenges for the CLIC study

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The CLIC study group at CERN has issued recently the Conceptual Design Report for the project. The talk will illustrate the main challenges for magnet design and specially the implications on the magnetic-measurement systems. The main challenges are the small apertures (< 10 mm), the high precision requested for the pre alignment (< 10 microns) and, eventually, the more than 50000 magnet units to be tested. Another important issue is the need for a very high stability for their magnetic axis (< 1 micron) requiring active pre alignment systems. The developments made in the last years on the Single Stretched Wire in its oscillation mode (for alignment and field harmonics) will help meeting these requirements. We will present latest results of magnetic measurements on the few prototypes already available.