

# Developments on the mechanics and cooling for the CLIC tracking detectors

*Tuesday 24 May 2016 09:00 (30 minutes)*

The CLIC detector tracking system is currently composed of a vertex detector with three double-sided layers of silicon detectors in both the barrel and forward regions and of a silicon tracker consisting of six barrel layers and four/seven disks on the outer/inner tracker subsystems, respectively. The strict requirements in terms of material budget ( $2 \times 0.2\% X_0$  per vertex double layer and  $1\% X_0$  per tracker layer) require the development of novel low-mass support structures and non-conventional cooling solutions. This talk will present the support structures concepts that are currently being explored as well as first results from finite-element simulations and small-scale prototypes. Initial results from the studies on the feasibility of air cooling for the CLIC vertex detector will also be shown.

## Summary

**Presenter:** SROKA, Szymon Krzysztof (CERN)