



Contribution ID: 9

Type: ORAL

## Mechanical concept of alignment mechanisms at MAX IV Laboratory

In this presentation we address the problem of precisely aligning 140 two-ton integrated magnet-packets at MAX IV Laboratory. We present the methods and techniques we have used to align these packets with a 6-DOF kinematic arrangement in order to increase precision and to get rid of the stresses induced by the fabrication imperfections and the thermal expansion. The 6-DOF aligning mechanisms are enhanced by locking mechanisms which are designed to precisely define the position of the packets in every DOF and at the same time to avoid the stick-slip motion. Furthermore, the positions of the target holders are optimized for minimizing the iterations during alignment. These methods and techniques are successfully implemented for both the 3 GeV and the 1.5 GeV rings at MAX IV Laboratory.

### Summary

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