

**Superconducting Coil Compression by Scissors Laminations, [A. IJSPEERT](#), J. SALMINEN, CERN -**

A new system of coil compression has been designed which uses the iron laminations to transfer the pressure from an outer shrink ring to the coil. The effect is obtained by making the rim of the circular laminations slightly eccentric as compared to the coil. Successive laminations are mounted with an angular shift to oppose their eccentricities. This allows them to make a scissors movement when compressed by the shrink ring. Tests on mechanical models of single as well as multiple aperture magnets have shown to behave as expected. The system has been applied to a corrector magnet for LHC and worked well. The paper will explain the mechanical and magnetic aspects of this system and report on the magnet test as well as on the previous mechanical tests. The advantages are low cost (suppression of the usual collars), increased coil compression in particular from cooling down, and field enhancement from having the iron close to the coil.