

WG 7 Magnets and Magnetic Shielding – Heiner Brueck and Mika Masuzawa, co-conveners

The conveners seek short (3~5 slides), specific contributions under the following SRF magnet and magnetic shielding topics. Relevant poster contributions recycled from other venues are encouraged, as well as new recent results. We seek to stimulate active, informed discussion. Please contact Heiner Brueck (heiner.brueck-at-desy.de) or Mika Masuzawa (mika.masuzawa@kek.jp) for contribution coordination.

Wed., March 25th, 4 hours, 8:30 – 12:30

1. Magnets
 - Experience with the production and the serial measurements of the superconducting XFEL magnets and their current leads
 - Discussion and maybe we can have a look to the test area in our building.
 - Split magnets
 - Current status, existing experience
 - Reproducibility of the magnetic center before/after splitting
 - Split/assembling strategy
 - Cool down and warm-up time by conduction cooling
 - Recovery time from quench
 - Current leads
 - pros and cons of these concepts.
 - Discussion on both topics
 - Keywords: serial production, serial tests, alignment, copper plating, cleaning, current leads, heat loads, assembly in modules...
2. Magnetic Shielding
 - Fringe fields near SRF cavities
 - Estimates or/and measurements of the fringe fields
 - Review of the shielding materials along with the actual shielding effects.
 - Cavity performance vs. external magnetic field.
 - Strategies for choosing the shielding material suitable for large scale production.