

Mechanisms of Vacuum Arcs-5









The workshop aims to combine the efforts of researchers in different fields to understand the mechanisms underlying the highly intriguing phenomenon of electrical breakdown. The workshop will cover rf and dc types of electrical breakdowns, including theory, experiment, and simulation. The workshop will be preceded by a half-day minischool on modeling surface (electrode) evolution processes relevant to electrical breakdown phenomena.

Topics

Experiments: vacuum arcs, dc spark systems, rf accelerating structures, materials, diagnostics, techniques and technologies for high gradients, and arcing in fusion devices.

Theory and simulations: surface modification under electric and electromagnetic fields, PIC and PIC-DSMC plasma simulations, dislocation activity, plasma-wall interactions, and surface damage and evolution.

Applications: particle accelerators, discharge-based devices, electrostatic failure mitigation, fusion devices, satellites and other industrial interests.





The workshop will be held in Saariselkä, Lapland. Lappish ruska is the time of beautiful autumn colors.

Organizers

Flyura Djurabekova HIP, University of Helsinki, Finland Walter Wuensch, Sergio Calatroni CERN, Switzerland Matthew Hopkins Sandia National Laboratories, USA Yinon Ashkenazy Hebrew University of Jerusalem, Israel







