

Stanford

Sebastian C. Aderhold

Lead Scientist, SLAC National Accelerator Laboratory

Bio

BIO

Dr. Sebastian Aderhold is a Lead Scientist at SLAC National Accelerator Laboratory (SLAC) and Head of the Superconducting Linac Physics Department in the Accelerator Directorate.

Under his leadership, the department provides the expertise to further optimize the newly commissioned superconducting part of the Linac Coherent Light Source (LCLS-SC) towards stable beam delivery for user operation, including diagnosing and addressing any issues with the superconducting cavities. The department also develops and maintains software tools and high-level applications that facilitate the smooth operation of the machine.

Sebastian joined SLAC as scientist in the LCLS-II project in 2018 and had a leading role in the preparation for and execution of the commissioning of the superconducting part of the LCLS linac (LCLS-SC).

Prior to joining SLAC, during his time as a postdoc at Fermi National Accelerator Laboratory (Fermilab), he conducted research on optimization of the surface resistance of 3.9GHz cavities and started contributing to Fermilab's effort for the Linac Coherent Light Source II (LCLS-II) project, most notably the design verification for the 3.9GHz cryomodule (CM) cavities.

CURRENT ROLE AT STANFORD

Department Head, Superconducting Linac Physics (SLAC)

EDUCATION AND CERTIFICATIONS

- PhD, University of Hamburg (2014)