

Andrew Dalesandro



Andrew Dalesandro is currently Cryoplant Senior Manager and Technical Lead for the SPARC tokamak at Commonwealth Fusion Systems (CFS) in Massachusetts where he is responsible for SPARC cryoplant system performance, leading the team from design through install, commissioning, acceptance, and operations. Since joining CFS in 2022, Andrew has grown the Cryoplant team and worked closely with a distributed, international supply chain and interdisciplinary stakeholders to manage risk and schedule milestones in support of SPARC first plasma and the development of commercial fusion power.

Prior to joining CFS, Andrew was a senior engineer, technical lead, and account manager for the PIP-II project cryogenic distribution system at Fermi National Accelerator Laboratory in Illinois, leading the cryogenic system design and development and coordinating with international partners. Since joining Fermilab as an entry level engineer in 2010, Andrew supported a variety of cryogenic engineering functions including detailed design, specification, and procurement of cryogenic systems, operation of superconducting test stands, and technical review leadership within cryogenic safety subcommittees. Major projects included design and installation of the warm piping system at the Cryomodule Test Facility and commissioning support and early operations of the 250 W 2 K superfluid helium cryoplant, process design and thermohydraulic analysis of the Cryogenic Distribution System (CDS) for the Linac Coherent Light Source II (LCLS-II) at Stanford Linear Accelerator Center in California, and detailed specification and procurement of CDS hardware for LCLS-II.

Andrew is passionate about education, and is an active sponsor and mentor of coop students and junior staff at CFS. At Fermilab, Andrew coordinated the development of an intern led fluids and heat transfer educational demonstration program to include in Fermilab's catalog of outreach courses, and was highly engaged with Fermilab's Education Outreach department, judging science fairs, speaking to career fairs, and teaching K-12 students elementary physics at libraries, museums, schools, and community centers in and around the Chicagoland area.