



NATIONAL HIGH MAGNETIC FIELD LABORATORY

Operated by Florida State University, University of Florida, Los Alamos National Laboratory
Florida State University, 1800 East Paul Dirac Drive, Tallahassee, Florida 32310
 Phone: (850) 644-0566 • Fax: (850) 644-0867 • e-mail mellow@magnet.fsu.edu • www.magnet.fsu.edu

Supported by the U.S. National Science Foundation and the State of Florida

FINITE ELEMENT ANALYST SOUGHT!

The National High Magnetic Field Laboratory is an NSF-funded user facility that operates the world's most powerful electromagnets at Florida State University, Univ. of Florida and Los Alamos National Lab. Development of these systems requires an understanding of structural mechanics, heat-transfer, electricity and magnetism, thermodynamics and materials science and the ability to envision new technologies and bring them to fruition.

Engineering Parameters for World-Record Resistive Magnets at FSU

Field	45 T
Current Density	600 A/mm ²
Power Density	15 W/mm ³
Power	30 MW
Stress	750 MPa
Stress	80 - 100% yield
Strain	0.6 %
Fatigue	10 kcycles
Temp.	10 – 100°C
Length	1.5 m

The Magnet Science and Technology Division of the MagLab is seeking exceptional individuals to help develop world-record resistive magnets.

Required Education: M.S. in Engineering, Physics or Applied Mathematics required, Ph.D. preferred.

Expectations: Provide computational support in structural mechanics and heat transfer for the design, of various novel resistive magnets including: a 25 T magnet for neutron scattering, a 36 T NMR magnet, a 41 T high-field magnet. Proficiency with Finite-Element Analysis and scientific computing is required. Good communications skills and the ability to interact constructively with physicists, engineers,

designers, and technicians are required. Presenting results in international conferences and publishing in peer-reviewed journals is expected. Preparation of reports and technical papers required. US citizenship preferred. Experience developing experimental hardware preferred. Ability to develop collaborations and proposals and manage inter-institutional projects preferred.

Current or recently-graduated students are encouraged to apply for an immediate full-time position.

Interested parties should forward resume including unofficial transcript to:
 Administrative Specialist, MS&T
Resmag@magnet.fsu.edu

The Florida State University is an Equal Opportunity, Affirmative Action employer, committed to diversity in hiring, and a Public Records Agency. Official FSU job listing(s) will be forthcoming.

