

Research Assistant Position

PhD: Arizona State University, Tempe, AZ, USA

Two Research Assistant Positions are available for exceptionally talented PhD students in the Cybernetic Systems and Controls Lab (CSCL) in the Department of Mechanical and Aerospace Engineering at ASU. The area of research is modern control theory, with an emphasis on computational methods.

Candidates must show excellent analytic and mathematical skills, with a background in controls or optimization.

Projects include but are not limited to:

- 1) Using computation to model the human immune response to cancer.
- 2) Design of control laws for radio-frequency heating of plasma in tokamaks for the production of energy via nuclear fusion.
- 3) Computational theory of parallel computing as applied to problems in control.
- 4) Computational analysis and control of partial-differential systems.
- 5) Algorithms for the optimization of polynomials, including Sum-of-Squares, and its application to problems in control.

Particularly relevant skills can include a background in Physics, Biology, Algorithms, Parallel computing, Mathematical analysis, Optimization, and all areas of Control. Candidates should have an undergraduate degree in Engineering, Mathematics, or a related discipline.

The Cybernetic Systems and Controls Laboratory, directed by Prof. Matt Peet, seeks to understand the potential and the limits of using computers to understand and control the physical and electronic environment. We are a growing group of graduate-level students who are committed to creating the next generation of breakout research at the intersection of engineering, computer science and mathematics.

ASU is a public, Ph.D.-granting university in Tempe, AZ with highly ranked programs in engineering, science, psychology, architecture, business, design, technology, and law. The graduate Aerospace Engineering Program at ASU was ranked 22nd in US News and World Report for 2012. Overall, the university was ranked 45th nationally and 78th globally overall by ARWU in 2012. In addition, ASU was ranked 8th nationally in the 2012 US News and World Report list of “up and coming” universities for making significant investments in academics and research.

Applicants should contact Professor Matthew M. Peet (mpeet@asu.edu) for more information. Online applications for the graduate program can be found at <http://graduate.asu.edu/admissions>.