



## RESEARCH PATHWAYS

# PHYSICS

**Undergraduate research is a cornerstone of our mission at Rutgers–Camden. Our goal is to provide as much support as possible for you to have a successful research experience.**

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**Need funding for a research project or conference travel experience?**



We encourage you to **visit [go.rutgers.edu/ug-grants](http://go.rutgers.edu/ug-grants)** to see what funding opportunities are available. Currently, you can receive up to \$500.00 to offset research expenses and conference travel expenses.

**Looking for a research project?**



If you know you want to get involved in research, but are unsure of where to start, visit **[go.rutgers.edu/curca-hub](http://go.rutgers.edu/curca-hub)** to view by subject area and keyword the different research projects seeking undergraduate researchers. Currently, the Department of Physics is looking for undergraduate researchers for the following project:

» “Computational materials for energy and sustainability,” led by Dr. Hong Fang ([hong.fang@rutgers.edu](mailto:hong.fang@rutgers.edu))

**Unsure if you are research-ready?**

To be research-ready, it is required that physics majors take the following courses:

- » 50:750:491 Research in Physics I
- » 50:750:492 Research in Physics II

**Who are the faculty? What do they research? What are their interests?**

- » Dr. Grace Brannigan ([grace.brannigan@rutgers.edu](mailto:grace.brannigan@rutgers.edu)): Computational biophysics, particularly dynamics of ion channels and other signaling proteins, as well as free energies of ligand-protein interactions
- » Dr. Hong Fang ([hf267@camden.rutgers.edu](mailto:hong.fang@rutgers.edu)): Computational design, development, and understanding of advanced materials and interfaces for renewable energy and sustainability
- » Dr. Julie Gripenburg ([jg1151@scarletmail.rutgers.edu](mailto:jg1151@scarletmail.rutgers.edu)): Nanoparticle functionalization and light-activation
- » Dr. Hunter King ([h.king@rutgers.edu](mailto:h.king@rutgers.edu)): Mechanics of structures engineered by plants and animals; non-equilibrium and soft matter physics; open-source instrumentation for table-top experiment and field measurement
- » Dr. Jiantao Kong ([jiantao.kong@rutgers.edu](mailto:jiantao.kong@rutgers.edu)): Computational condensed matter physics, particularly plasmonics and electron-phonon interactions
- » Dr. Sean O'Malley ([omallesc@camden.rutgers.edu](mailto:omallesc@camden.rutgers.edu)): Laser-material interactions; Pulsed Laser Ablation in Liquids (PLAL); laser-based nanoparticle synthesis techniques; nano-scale multiferroics
- » Mr. Cory Trout ([cory.trout@rutgers.edu](mailto:cory.trout@rutgers.edu)): Nanomaterial synthesis and characterization

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