Welcome to UConn Physics
2024 Open House for new Graduate Students

Gerald Dunne March 8, 2024
Overview
Who we are and what we do

- 45 Faculty members (from 21 different countries)
- 100+ graduate students
- Teaching, Research and Outreach in modern physics
- Atomic, Molecular, Optical (AMO) physics
- Astrophysics
- Condensed Matter Physics
- Nuclear and Particle Physics
Our Goals

• We aim to guide you towards making new and exciting discoveries in modern physics

• Preparation in core physics courses: classical mechanics, electrodynamics, statistical mechanics, quantum mechanics

• Advanced classes in sub-fields

• Research training, mentorship, support and guidance

• Career development: writing and speaking about physics, and teaching physics
Graduate School is Intense but Rewarding

• You will have a lot of freedom to explore and discover - take advantage of it
• You will make close and lifelong friends
• You will have research and collaboration opportunities with physicists from all over the world, from all different backgrounds
• Make the most of these opportunities
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  • Have some fun - PGSA Physics Graduate Student Association
  • UConn has many student clubs
National Labs and Collaborations

• Modern physics is extremely collaborative and international
• Large national labs dedicated to cutting-edge research
• UConn Physics has particularly close affiliations with many: Brookhaven, Fermilab, Jefferson Lab, Argonne, Los Alamos, SLAC, Livermore, …, JPARC, DESY, Max Planck, …
• Astro: Hubble, Webb, ALMA, Max Planck, Flatiron Institute, …
• Theory Collaborations: Lattice QCD, UKQCD, Simons Center, QTC Denmark, …
• Collaborations within UConn, and with other Universities
• These provide amazing opportunities for students - take advantage of this!
UConn Physics Events

• Friday Colloquium: get together and learn about new physics research
• Seminars: AMO, Astro, Particle/Nuclear, Condensed Matter
• Special Lectures: Katzenstein, Pollack, Reynolds
• Poster Day: spring
• Ice-cream social: fall
• Holiday party
• Regular PGSA events
• Mt. Monadnock hike: early October
Annual UConn Physics hike: Mt. Monadnock
American Physical Society

- National Society and regional New England Section
- Conferences and Scientific Meetings
- Social events
- Career development events and resources
- Excellent opportunity to make connections and practice research presentations
- Get involved!
Practical Matters

• Basic flow of a PhD

• Years 1+2: core coursework and exploring research: field and major advisor

• Year 3: advanced courses & research: dissertation proposal and plan of study

• Years 4 and 5+: intense dissertation research and writing papers, dissertation

• Annual Progress Forms to help keep you on track

• In the end it is all up to you. We will do everything to help, but it will be your degree and your achievements
After Graduation

• What next?

• Historically: approximately 1/3 academia, 1/3 industry, 1/3 other (finance, computing, teaching, …)

• We will help you: advice, networks, letters of recommendation, …

• It’s good to think about this early on, but keep an open mind. Physicists are extremely successful in many different careers, and your interests will evolve