Overview and Timeline of our PhD program

R. Dermisek
Grad Day
3/25/23

Graduate Visitation Day
Saturday, March 13, 2021
9:00 A.M.

Location: Zoom

Welcome students!
Thank you for your interest in our physics PhD program. Our goal for this visitation day is to introduce you to our department and give you a chance to interact (albeit virtually) with our faculty and students. The program today consists of:

- a welcome from our department chair,
- overview of graduate program requirements and our research activities,
- an opportunity to talk with some of our current graduate students,
- discussions with faculty about their research, and
- a virtual tour of the physics building (Swain Hall West) in beautiful Bloomington, Indiana.
Introductions, Physics Graduate Student Services

**David Baxter**
Professor, Physics  
Department Chair  
✉️ baxterd@indiana.edu  
📞 (812) 855-8337  
📍 Swain West 152B, Multidisciplinary E  

Research Interests:  
condensed matter physics (experimental)

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**Radovan Dermisek**
Professor, Physics  
Director of Graduate Studies  
✉️ dermisek@indiana.edu  
📞 (812) 856-6918  
📍 Swain West 225  

Research Interests:  
elementary particle physics (theoretical)

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**Nelson Batalon Jr.**
Student Services Generalist  
✉️ nbatalon@indiana.edu  
📞 (812) 856-7069  
📍 Swain West 152E

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**Rex Tayloe**
Professor, Physics  
Grad Advising  
✉️ rtayloe@indiana.edu  
📞 (812) 855-3057  
📍 Swain West 269  

Research Interests:  
neutrino and nuclear physics

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**Regan Campbell**
Student Services Coordinator  
✉️ jrc6@iu.edu  
📞 (812) 855-2095  
📍 Swain West 152
Introductions

Faculty:

Plus research scientists and support staff!
https://physics.indiana.edu/about/directory/all-faculty-scientists/faculty/index.html
Introductions

Graduate Students:

- ~90 students
- 19% female
- 28% international
- 17% from under-represented groups
- average time-to-degree for 2021 grads was 6.6 yrs
- Employment:
  for 60 PhDs 2014-18
  - 37% career research
  - 10% industry or business
  - 37% post-doc research
  - 7% non-tenure track faculty
Summary of IU Physics graduate program requirements

**Year 1:**
- Take the recommended 1st-year core courses for solid physics foundation and to succeed on the qualifying exam (EM1/2, QM1/2, class/stat mechanics)\(^1\)
- get connected with a research group with goal of research credit (and support) by summer after 1st year
- prepare for/a take the qualifying exam in August at end of 1st year
- (likely) teaching assignment

**Year 2:**
- Take courses in major and minor areas of concentration.
  - 2 courses for major (eg: subatomic physics, solid state/condensed matter, or biophysics)
  - 3 courses for minor (eg: quantum field theory, computational physics, other non-major course)
- Ramp up involvement with research

**Year 3:**
- Finish any course requirements in major or minor areas and meet 90 credit hour requirement\(^2\)
- Complete candidacy seminar in 5th semester
- Meet teaching requirement (if not done in previous years)
- Complete any language requirements

You are then “nominated for candidacy”.

**Years >3:**
- Do advanced research in G901.
- average time to PhD, IU physics, over last 5yrs = 6 yrs.

\(^1\) biophysics tract is somewhat different
\(^2\) 90 cr hr requirement met after 3 yrs with 12/12/6 cr hr in Fall/Spring/Summer

Qualifying exam:
- details: https://physics.indiana.edu/student-portal/graduate/doctoral-degrees/qualifying-exam.html
- in Aug after 1st year
- on material covered in undergraduate and 1st year grad courses
- Passing the qualifying exam is based not only on the student’s performance on the written examination, but also on their performance in courses and, in particular, in research.
- Large majority of our students pass
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Much more information at: [https://physics.indiana.edu/student-portal/graduate/index.html](https://physics.indiana.edu/student-portal/graduate/index.html)
Life at IU

A beautiful, vibrant, and supportive campus/department!

See our www site for links to many resources related to the community, health and wellness, housing:

- IU Bloomington Interactive Campus Map
- IU Student Health Center
- IU Recreational Sports
- Bloomington Visitors Center
- Indiana Daily Student - Housing & Living Guide
- Apartment Guide
- Indiana Daily Student - Source Campus Visitors Guide Spring 2020
Life at IU

A beautiful, vibrant, and supportive campus!
Life at IU

A beautiful, vibrant, and supportive campus!
Thanks for applying to our program, thanks for attending today, and we hope you join us this fall!

### Graduate Student Visitation Day 2023

**Morning: Swain West 130 (Tea Room)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>~8:45 AM</td>
<td>Light morning refreshments</td>
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<tr>
<td>9:00 AM</td>
<td>Welcome</td>
<td>Walter Pettus</td>
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<tr>
<td>9:05 AM</td>
<td>Department and research overview</td>
<td>Dave Baxter, Chair</td>
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<tr>
<td>9:20 AM</td>
<td>Overview of PhD program and requirements</td>
<td>Radovan Dermisek, DGS</td>
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<tr>
<td>9:30 AM</td>
<td><strong>Breakout discussions with research groups</strong></td>
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<tr>
<td>10:35 AM</td>
<td>Coffee break</td>
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<td>10:50 AM</td>
<td>Tour of Simon Hall</td>
<td>Phil Richerme</td>
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<td>11:10 AM</td>
<td>Tour of Swain Hall</td>
<td>Dave Baxter et al.</td>
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<tr>
<td>12:00 PM</td>
<td>Lunch and walking tour of campus with graduate students</td>
<td>Nick Parris et al.</td>
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**Afternoon: MESH NLCR**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>2:30 PM</td>
<td>CEEM Overview</td>
<td>Scott Wissink</td>
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<tr>
<td>2:45 PM</td>
<td>Tour of MESH</td>
<td>Mike Snow, Rex Tayloe</td>
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<td>4:00 PM</td>
<td>Grad student panel</td>
<td>No faculty allowed</td>
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<td>5:00 PM</td>
<td>Reception</td>
<td>All</td>
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<tr>
<td>7:00 PM</td>
<td><strong>Event conclusion and return to hotel</strong></td>
<td></td>
</tr>
<tr>
<td>8:00 PM</td>
<td>Bloomington excursions</td>
<td>Graduate students</td>
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Questions/discussion welcomed