

Overview and Timeline of our PhD program

R. Dermisek Grad Day 3/25/23

# Colloquium Calendar LENS/Condensed

Matter Physics Seminars

Past Events

Events

High-Energy Physics/Astrophysics Seminar

Department news

#### **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

## Faculty:

















% (812) 856-5656



Herbert A. Fertig % (B12) BSG-1980



Charles J. Horowitz Professor, Physics



James H. Rudy Distinguished Professor, Physics · (812) 859-7929



V Alan Kostelecky Oletingulahed Professor, Physics % (\$12) BSS-10BS

9 Swain West 157





Jinfeng Liao

% (\$12) 896-7796

James H. Rudy Professor, Physics



9 Smain West 275; Center for Exploration of Energy and Matter 100.



% (\$12) 896-2297



t (\$12) 866-0096



Christopher Meyer Leditart Professor, Physics % (\$12) 896-6779 9 Syain West 207



Professor, Physics

€ (E12) 825-9922

Research Interests
High energy astrophysics and reubrino physics



9 Strain West 220

Research interests condensed matter and quantum information theory





Research Interests recting physics (separimental), nuclear physics (separimental)

4 (SOS) STO-STOR

Phil Richerme Japistant Professor, Physics 4 (\$12)-856-1688

Research Interests stomic physics and guartum information (experimental)



Babak Seradjeh

9 Swain West 204

condensed matter physics: stomic physics: quantum information



Professor, Physics Director of Undergraduate Studies 4 (812) 955-9127 V Swain West 206



V Swain West 265



W. Michael Snow Professor, Physics

9 Sould West 038



Research Interests nuclear physics (superimental) Paul E. Sokol Professor, Physics

4 (\$12) 896-1498 Essenth Interests condensed matter physics (experiments):



Professor, Physics Director, Nuclear Theory Center 5 (\$12)\$55-0196 Research Interests seamentary particle physics and nuclear physics (theoretical)

Adam Szczepaniak



% (\$12) 855-8057

9 Swain West 200 Research interests neutring and nuclear physics



Jon Urhelm Professor, Physics 52 urhalm@indlana.edu 4 (\$12) SSS-6178

9 Swain West 203 Easearch Interests high energy physics (sogeriments):

Rick Van Kooten



Discutive Dean, College of Arts and Sciences 52 syankoot@indiana.adu

% (812) 855-2650 9 Swain SSS, Carmichael 202 Research interests elementary particle physics (experimental)



Scott W. Wissink Professor, Physics.
Director of the Center for Exploration of Energy and Matter

€ (812) 855-5192 9 Swain West SSI; Wultidisciplinary Engineering and Sciences Half 181

nuclear physics (experimental) Shibliong Zhang Associate Professor, Physics.

9 Swain West 202

⊠ sichang@indlans.edu € (\$12) 899-1990

Plus research scientists and support staff!

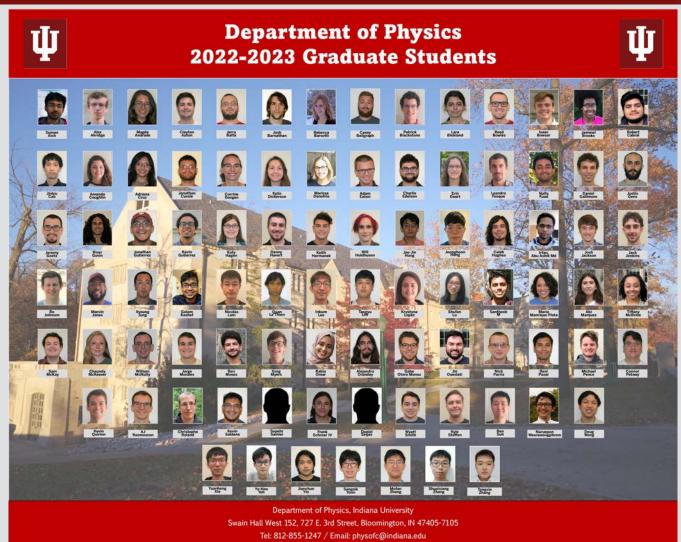
https://physics.indiana.edu/about/directory/ all-faculty-scientists/faculty/index.html



## **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<sup>1</sup>)
- 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

#### <u>Year 3:</u>

- Finish any course requirements in major or minor areas and meet 90 credit hour requirement<sup>2</sup>
- 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/doctoraldegrees/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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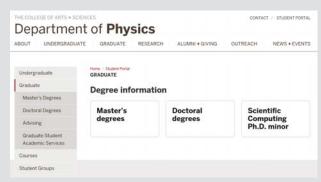
Much more information at:

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# 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:



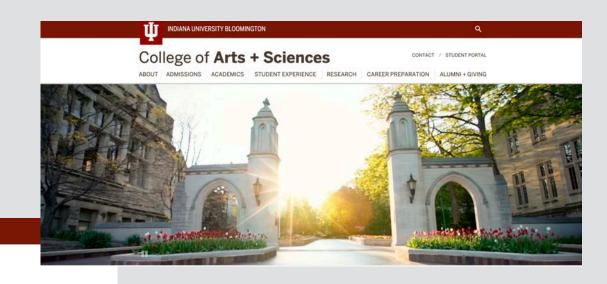






# Life at IU

A beautiful, vibrant, and supportive campus!





# **The University Graduate School**





## Life at IU

## A beautiful, vibrant, and supportive campus!



New Patients

Hours & Location

Emergency & After
Hours

Meet Our Team

Diversity & Inclusion

Records

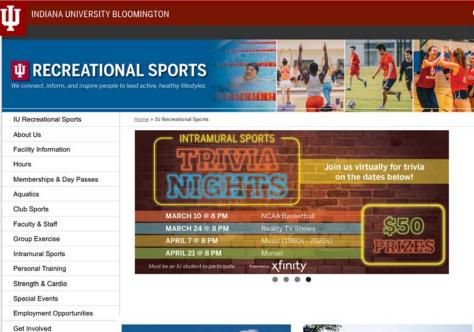
Parents

As a college student, you face unique health issues. You're living and studying in close quarters, which means increased exposure to colds, flu, and other diseases. You're juggling school, work, and social obligations—and that's stressful. And for the first time, you're making a lot of your own choices about your health.

Who can be a Student Health Center patient?

We welcome all IU Bloomington students and their:

- Spouses
- · Dependents age 12 and





1601 Law Lane, Bloomington, IN 47408 Information: (812) 855-7772



1025 E. 7th Street Bloomington, IN 47405 Information: (812) 855-5222



Thanks for applying to our program, thanks for attending today, and we hope you join us this fall!

## **Graduate Student Visitation Day 2023**

## <u>Today</u>

Morning: Sw	ain West 130 (Tea Room)	
~8:45 AM	Light morning refreshments	
9:00 AM	Welcome	Walter Pettus
710012.2		.,
9:05 AM	Department and research overview	Dave Baxter, Chair
9:20 AM	Overview of PhD program and requirements	Radovan Dermisek, DGS
9:30 AM	Breakout discussions with research groups	
10:35 AM	Coffee break	
10:50 AM	Tour of Simon Hall	Phil Richerme
11:10 AM	Tour of Swain Hall	Dave Baxter et al.
12:00 PM	Lunch and walking tour of campus with graduate students	Nick Parris et al.
Afternoon: MESH NLCR		
2:30 PM	CEEM Overview	Scott Wissink
2:45 PM	Tour of MESH	Mike Snow, Rex Tayloe
4:00 PM	Grad student panel	No faculty allowed
5:00 PM	Reception	All
7:00 PM	Event conclusion and return to hotel	
8:00 PM	Bloomington excursions Meet in hotel lobby	Graduate students



Questions/discussion welcomed