

Why should I come here? Analyzing the content of online physics graduate program advertisements

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Introduction

- Graduate education is important for training the next generation of researchers and educators [1].
- Graduate admissions is the first step in this process.
- Limited work has examine how applicants select programs to apply to.
- Prospective students use the information on websites to determine whether they should apply to the program [2].
- Applicants are often interested in knowing what it is like to be a student in specific program [3].
- Online resources can provide insight into that.

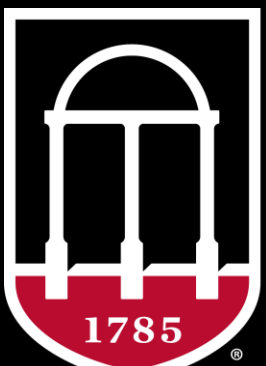
- **Research goal: characterize the information that programs are sharing with potential applicants about being a student there.**

Methods

- Extract GradSchoolShopper listings of all U.S. physics graduate programs [4]
 - American Institute of Physics hosted platform that physics programs can advertise on
 - 3rd most used resource for selecting programs [4]
- Specifically look at department culture statements (N=54)
- Use content analysis
 - Iteratively develop topics from the listings
 - After developing topics, code listings
 - Compare codes and resolve any disagreements

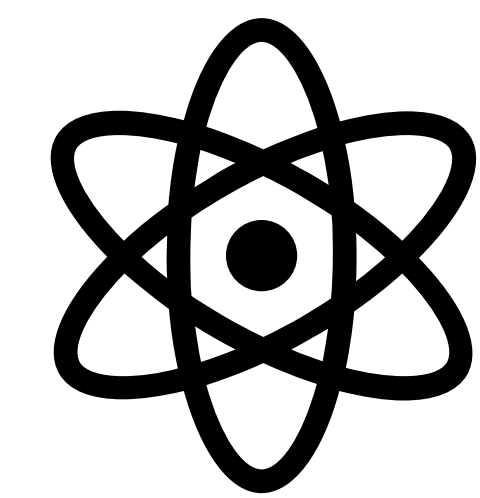


Poster



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Department culture statements focused on four broad topics:



Opportunities
(49/54)



Their values
(48/54)

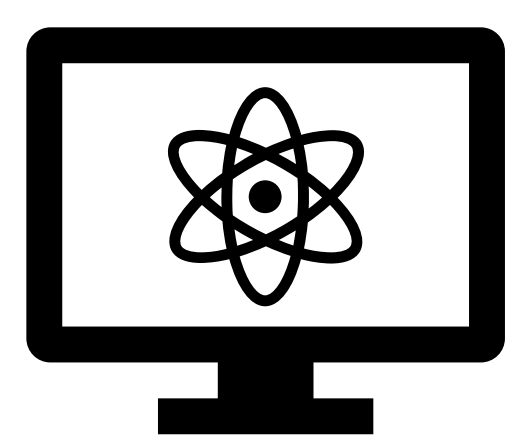


Local environment
(30/54)



Their reputation
(16/54)

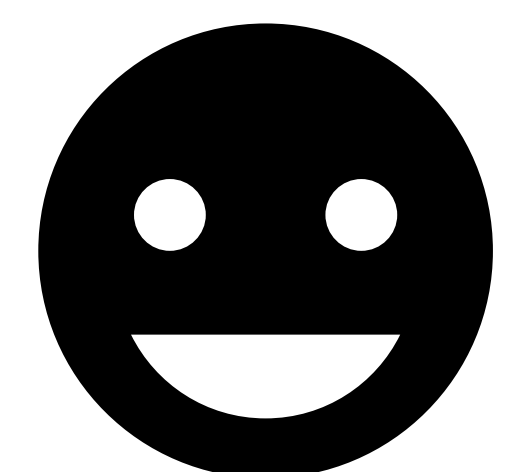
The most common subtopics were



Research opportunities
(43/54)

The department contains internationally recognized institutes which undertake a broad scope of research activities, including the Cyclotron Institute, the Mitchell Institute for Fundamental Physics and Astronomy, and the Institute for Quantum Science and Engineering.

Today our department includes cutting edge research in the areas of applied physics, astrophysics, AMO, biophysics, condensed matter, nuclear, high energy particle, education and planetary/geophysics.



Positive Atmosphere
(37/54)

Our department enjoys a collegial and inclusive culture which fosters student success and scientific creativity.

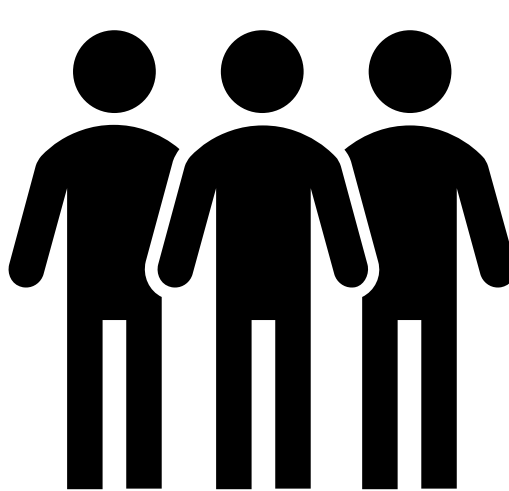
The Department of Physics prides itself on our friendly and welcoming environment.



Departmental social events
(31/54)

Social activities in the department include happy hours, intermural sports teams, and seasonal activities.

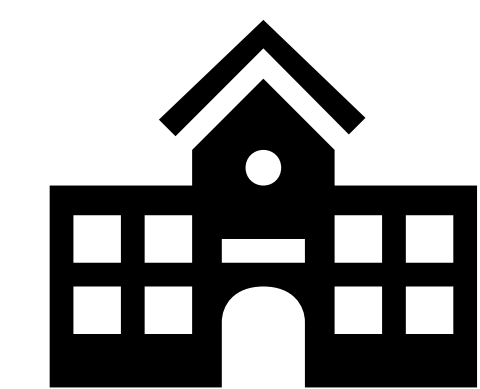
Students in physics actively organize and participate in coffee hours, departmental get-togethers, pumpkin carving, solar barbecues, and other events throughout the year.



Physics student organizations
(24/54)

Grad Phi is a student organization focused on developing, supporting, and improving the graduate student community while promoting non-academic interaction among physics graduate students.

Within our department's graduate community, the Physics Graduate Student Association (PGSA) is a vibrant group that provides resources to our students and plans year-round professional and social events outside the classroom/laboratory.



Department size
(20/54)

Our department is large enough to encompass all of the major research areas in physics, but small enough to provide a friendly, welcoming environment for students.

Our department is large enough to support experimental, theoretical, and computational graduate research in several areas, but small enough so that students and faculty form a close knit group.



Favorable location
(19/54)

Laramie's location at 7,200 ft. elevation near the eastern edge of the Rocky Mountains provides excellent recreational opportunities for hiking, fishing, camping, climbing, skiing, and enjoying the breathtaking beauty of the "mountain west" all within a short drive.

Being situated in Boston enables robust interactions with a multitude of industry and academic institutions located within a short ride on the subway.

Acknowledgements & References

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[1] Graduate STEM Education for the 21st Century (National Academies of Sciences, Engineering, and Medicine, 2018)

[2] Z. Ishak, O. Alexander, O. I. Al-Sanjary, and E. Yusuf, 2020 16th IEEE International Colloquium on Signal Processing & Its Applications (CSPA) (2020).

[3] D. Winter, Ph.D. thesis, University of Central Florida (2009)

[4] <https://gradschoolshopper.com/>