

# Physics



**When you study physics, you seek a fundamental understanding of the beauty, order, and sophistication of the physical universe God created.**

You'll study classical and modern physics and construct experiments using state-of-the-art instrumentation. You can conduct research with Westmont professors in astrophysics, nuclear physics, and particle physics. You can also research at other institutions through NSF-funded programs or pursue internships with local high-tech firms. Such practical training prepares you for graduate school and professional work in science, engineering, and related fields. Interested in a double major? Take the Bachelor of Arts track for greater breadth and flexibility.

## SELECTED COURSES

- Advanced Physics Lab
- Classic Mechanics
- Computational Physics
- Electricity and Magnetism
- Mathematical Methods in Physics
- Modern Physics (lecture and lab)
- Quantum Mechanics (2 semesters)
- Thermodynamics

## CAREER PATHS

- Research physicist
- Engineering (mechanical, electrical, process, civil, aeronautical, etc.)
- Software development
- Teaching (high school or college)
- Materials research
- Nuclear medical science
- Medicine
- Patent law
- Science writing
- Technician
- Forensic science
- Museum education

## FACULTY HIGHLIGHTS



**BOB HARING-KAYE, PH.D.**

An experimental nuclear physicist who specializes in teaching laboratory-based courses



**MICHAEL SOMMERMANN, PH.D.**

A nuclear physicist who takes astronomical photos



**BEN CARLSON, PH.D.**

Searches for new fundamental particles at the large Hadron Collider



**KEN KIHLLSTROM, PH.D.**

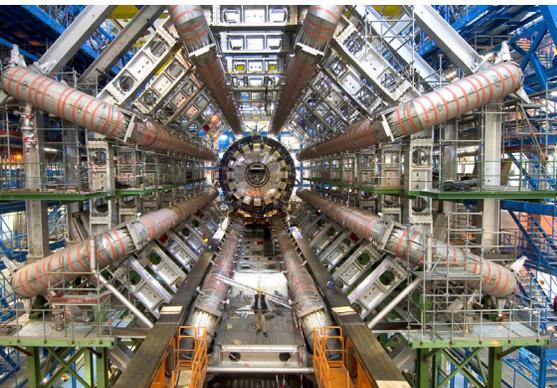
Demonstrates physics by lying on a bed of nails and walking on hot coals



**WILL ALLISON, M.S.**

A mechanical design engineer with extensive experience in CAD and prototyping

## RESEARCH OPPORTUNITIES



- ATLAS experiment at the Large Hadron Collider
- Early-universe cosmology using the Simons Array
- Nuclear structure studies using gamma-ray spectroscopy

## ALUMNI

**Lexy Gillette '22** majored in both Physics and Chemistry, integrating her faith with her studies. She participated in two research projects with a faculty mentor at both Westmont and UC Davis and completed an internship at Northrop Grumman. She also volunteered to promote science to local high school girls. Lexy received a prestigious John and Daria Barry Foundation Scholarship to attend Oxford University to support her pursuit of a PhD. Lexy is one of the first recipients of this award in the natural sciences.

**Chisondi Warioba '21**, originally from Tanzania, chose Westmont as a stepping-stone to medical school. Chisondi was one of four students in his class who completed a triple major (Chemistry, Biology, and Physics). He led the Black Student Union his junior year and organized Residence Life events centered around social issues. At the 2021 Commencement, Chisondi received the Dave Dolan Award for his leadership in responding to the social and spiritual needs of the college. Chisondi is pursuing a PhD in Medical Physics at the University of Chicago.



**WESTMONT**

[westmont.edu/physics](http://westmont.edu/physics)