



# University Of Richmond Physics Professor Jerry Gilfoyle Awarded \$275K+ Department Of Energy Grant For Nuclear Physics Research

SEPTEMBER 14, 2021

*Note: Photo above was taken at the JLab in 2020.*

UNIVERSITY OF RICHMOND — Jerry Gilfoyle, professor of physics at the University of Richmond, has been awarded \$278,000 by the U.S. Department of Energy to support his **ongoing nuclear physics research**.

Gilfoyle’s project, “Medium Energy Nuclear Physics at the University of Richmond” has been funded by the Department of Energy since 1990, bringing total funding for this research to nearly \$2.3 million.

This renewal grant supports the University’s electromagnetic nuclear physics program at the Thomas Jefferson National Accelerator facility, known as the JLab, located in Newport News, Virginia.

Gilfoyle’s research team has been conducting a series of measurements and collecting data to better understand the internal structure of fundamental particles that form the universe. This research has applications in a variety of fields and industries, including in nuclear power, geology, and radiology. Gilfoyle’s team has developed software testing tools to analyze and validate their measurements.

“We use the electron beam JLab to illuminate the neutron interior and measure its electric charge and current distributions,” Gilfoyle said. “We are now analyzing recently collected data to perform this measurement and have produced preliminary calibration results.”

The DOE grant funding will support Gilfoyle and two undergraduate students for summer research stipends, travel, materials, and supplies. The funds also support a masters student from the joint program at the University of Surrey in the United Kingdom.

**Gilfoyle** has taught at Richmond since 1987 and holds the Robert Edward and Lena Frazer Loving Chair of Physics.

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**DR. GERARD P. GILFOYLE**

*Professor of Physics*

*Robert Edward and Lena Frazer Loving Chair of Physics*

Specialties:

- Electro-nuclear physics
  - Computational methods
  - Nuclear non-proliferation and science policy
- 2 Active learning strategies in introductory and advanced physics courses

Contact:

## GRANT AT-A-GLANCE

Jerry Gilfoyle, professor of physics, has been awarded \$278,000 by the U.S. Department of Energy to support his on-going project, "Medium Energy Nuclear Physics at the University of Richmond."