

MRI Physicist ND Human Neuroimaging Center

Notre Dame, IN, United States

Full-time

Dean of Arts and Letters

EIC2

Company Description

The <https://www.nd.edu/> is more than a workplace! We are a vibrant, mission-driven community where every employee is valued and supported. Rooted in a tradition of excellence and inspired by our Catholic character, Notre Dame is committed to fostering an environment of care that nurtures the whole person-mind, body, and spirit. Here, you will find a deep sense of belonging, a culture that prioritizes well-being, and the opportunity to grow your career while being a force for good in the world. Whether contributing to world-class research, shaping the student experience, or supporting the University's mission in other ways, you will be part of a dedicated team working to make a meaningful impact on campus and beyond. At Notre Dame, your work matters, and so do you!

Job Description

The **Human Neuroimaging Center at the University of Notre Dame** is seeking an **MRI Physicist** to join our collaborative and research-driven team. This individual will play a key role in advancing neuroimaging innovation through the development of cutting-edge MR acquisition methods on the Siemens 3T Cima.X platform-supporting brain research that enhances scientific discovery, technological capability, and human health.

About the Position

The **MRI Physicist** supports the development and advancement of cutting-edge MR imaging methods for brain research using the Siemens 3T Cima.X platform. This role focuses on the programming, implementation, and testing of MR acquisition pulse sequences and image reconstruction techniques, while contributing to methodological innovation that strengthens neuroimaging research across the University. The position also collaborates with multidisciplinary research teams and technical partners to enhance imaging capabilities and advance scientific discovery.

In this role, the MRI Physicist will work hands-on with MRI hardware and software, support experimental design and protocol development, and participate in testing procedures that may include scanning human subjects (volunteers and

patients). The position offers opportunities to explore and refine emerging technologies-including gradients, RF coils, field cameras, image reconstruction strategies, and AI/Deep Learning approaches-and to integrate these advancements into the Center's research infrastructure.

Key Responsibilities

Pulse Sequence Development

- Develop, modify, and test MR pulse sequences using the Siemens development environment
- Implement and optimize innovative acquisition strategies for neuroimaging applications
- Conduct technical development aligned with Center research goals

Research Collaboration & Methodological Support

- Partner with faculty and research teams to design protocols and support study planning
- Provide MR physics expertise to advance scientific outcomes
- Contribute to methodological innovation within active research projects

Technology Advancement & Innovation

- Participate in development and integration of emerging MRI technologies, including:
 - gradients
 - RF coils
 - field cameras
 - image reconstruction approaches
 - Deep Learning / AI tools

Experimental Testing & Data Validation

- Scan phantoms and human subjects to validate new methods
- Conduct QA/QC procedures
- Integrate new acquisition strategies into Center workflows

Qualifications

Required Qualifications

- M.A./M.S. in Physics, Engineering, Computer Science, or related discipline
- Demonstrated ability to develop, modify, and test MR pulse sequences on a research MRI platform, with significant knowledge of MRI physics
- Demonstrated ability to work in a team environment

- Excellent verbal and written communication skills

Preferred Qualifications

- Ph.D. in Physics, Engineering, Computer Science, or related discipline
- Experience with pulse sequence development using the Cima.X MRI platform
- Experience in image reconstruction
- Experience in scanning human subjects

Additional Information

Application Deadline: March 9, 2026

Hiring Pay Range: Commensurate with qualifications and experience.

Required Application Materials: Cover letter, CV, and (3) letters of recommendation.

Term: Three-year, limited-term. Contingent on funding, the position may be extended

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