

Postdoctoral position. Modeling of liquid metal flows for  
nuclear fusion applications  
University of Michigan-Dearborn

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Posted Dec. 8, 2024, set to expire Apr. 9, 2025

<b>Job Title</b>	Postdoctoral position. Modeling of liquid metal flows for nuclear fusion applications
<b>Department</b>	Mechanical Engineering <a href="https://umdearborn.edu/cecs/departments/mechanical-engineering">https://umdearborn.edu/cecs/departments/mechanical-engineering</a>
<b>Institution</b>	University of Michigan-Dearborn Dearborn, Michigan
<b>Date Posted</b>	Dec. 8, 2024
<b>Application Deadline</b>	Feb. 1, 2025
<b>Position Start Date</b>	Dec. 16, 2024
<b>Job Categories</b>	Post-Doc
<b>Academic Field(s)</b>	Sustainable Engineering Ocean Engineering Nuclear Naval Architecture & Marine Engineering Mechatronics Mechanical Engineering Engineering Physics Electrical and/or Electronics Chemical/Petroleum Aerospace/Aeronautical/Astronautics Engineering - Other
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<b>Job Description</b>	

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A postdoctoral position is available immediately to work on a project involving development of numerical models, simulations, and theoretical analysis of processes in a liquid metal subjected to a rapidly changing magnetic field.

This multi-year project is part of a collaboration led by the Oak Ridge National Laboratory, aiming to develop new computational models for transient processes in nuclear fusion reactors. Research work will include CFD modeling of reactor components and development of semi-analytical and spectral method solutions for simplified geometries. The successful candidate will join a large project team comprising members from various universities, national laboratories, and companies across the US.

Required Qualifications: Ph.D. in a relevant area of engineering, physics, or applied mathematics. Strong background in numerical simulations. Proficiency in coding. Candidates with expertise in both fluid mechanics and electromagnetics are especially encouraged to apply.

### Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

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