PhD Opportunity in Environmental Fluid Dynamics – University of Missouri

The Environmental Fluid Dynamics Laboratory at the University of Missouri is seeking a motivated PhD student to join a USGS-funded project on invasive carp egg transport in large rivers. Preferred start term is Spring 2026. **The position offers a stipend of $2,500 per month, with full tuition and health insurance coverage.** Applications will be reviewed on a rolling basis until the position is filled, with the application deadline of **November 1, 2025**.

The successful candidate will work on an existing Lagrangian particle tracking model to study the transport of invasive carp eggs in rivers, streams, and tributary confluence. This work requires strong knowledge of transport theory, river dynamics, turbulent diffusion, and dispersion processes. The candidate will also contribute to developing and applying machine learning approaches to improve the efficiency of modeling and data processing.

Applicants should have strong programming skills in Python and MATLAB for data analysis and model development. Experience with computational fluid dynamics (CFD) is highly desirable.

Requirements:
- A degree in engineering, physics, or a related field
- Strong program skills
- Solid foundation in fluid mechanics and transport processes, demonstrated through advanced coursework and/or research experience

About the Principal Investigator:
Dr. Binbin Wang is William Andrew Davidson Professor in Civil Engineering at the University of Missouri. His research focuses on fundamental fluid flows and their impact on natural and engineered aquatic environments, with applications spanning environmental hydraulics, aquatic ecosystems, geophysics, and environmental health. Dr. Wang's research is funded by the National Science Foundation, U.S. Geological Survey, U.S. Environmental Protection Agency, Office of Naval Research, Gulf of Mexico Research Initiative, and other agencies. He was selected for the 2022 Early-Career Research Fellowship of the National Academy of Sciences' Gulf Research Program and serves as an associate editor for the *Coastal Engineering Journal*. He is actively involved in professional organizations (ASCE-EMI, ASCE-EWRI, IAHR), creating strong professional networks for trainees.

How to Apply
Please send an email to **wangbinb@missouri.edu** with the subject line **"PhD - Turbulent Transport"**. In the body of the email, briefly describe your experience in transport theory, turbulent diffusion/dispersion, machine learning, and/or CFD and list your relevant fluid mechanics coursework (course titles; include level and grades if available). Attach the following as a single PDF:

- CV
- 1–2 paragraph statement of research interests and fit
- Unofficial transcripts
- Names and contact information for 2–3 references