

The **Vienna School of Mathematics (VSM)** is a joint graduate school of the mathematics faculties of the **University of Vienna** and the **TU Wien**. The VSM is devoted to top-level PhD education in all branches of mathematics. It fosters intra- and interdisciplinary scientific cooperation and networking among students and advisors and aims at increasing the international visibility of the Vienna area as a center for mathematics.

The VSM currently announces a PhD position in the area of

Data Assimilation of Wasserstein Gradient Flows (University of Vienna, Supervisor: Olga Mula)

The selected candidate will contribute to a project at the intersection of **data assimilation and optimal transport**, focusing on **Wasserstein Gradient Flows**. The goal is to design innovative assimilation schemes using nonlinear approximation tools—such as **neural networks**, **spline functions**, or **Gaussian random fields**. The core challenge? Developing methods that are not only **provably stable and reliable**, but also **efficient in high dimensions**, minimizing the impact of the curse of dimensionality, and satisfying certain **structural properties** of gradient flows such as energy dissipation. The research will combine notions from gradient flow analysis, optimal transport, modern approximation theory and machine learning techniques.

The advertised position is associated with the **Faculty of Mathematics of the University of Vienna**. The successful candidate will become a member of the Vienna School of Mathematics and is expected to actively contribute to its activities. The extent of employment is 30 hours per week. **The position is planned to start between September and December, 2025.**

Application Requirements and Procedure

You can find all the details about the requirements and the procedure to apply [at this link](#). **The deadline for application is July 8, 2025.**