

Workshop on Foundation Models for Topological Data - Challenges and Opportunities

Call for Contributions

Organisers: Timo Dickscheid[1,2,3, Christian Schiffer1,2, Susanne Wenzel1,2, Martin Schultz4

- ¹ Helmholtz AI, Forschungszentrum Jülich
- ² Institute or Neuroscience and Medicine (INM-1), Forschungszentrum Jülich
- ³ Institute of Computer Science, Heinrich-Heine-University Düsseldorf
- ⁴ Jülich Super Computing Centre, Forschungszentrum Jülich

Foundation models have started to revolutionize the field of artificial intelligence and with that many scientific and industrial applications. So far, research on these powerful generalist models resolves around models that operate on images or written language, or sometimes both in combination. In comparison, topological data (e.g., attributed graphs) has received relatively little attention with respect to the development of foundation models, despite its central role in many scientific domains, including climate modelling, neuroscience, molecular science, and remote sensing. With this workshop, we will discuss applications from different scientific domains which rely on analyzing topological data, and aim to identify common challenges and potential solutions towards developing foundation models for topological data.

Where: Campus FZJ

When: June 11, 2024, half-day

We invited contributions on these topics for 15 minute talks, plus 10 minutes discussion.

Please send a short abstract (not more than 500 words) by May 1st to s.wenzel@fz-juelich.de



