

Abstract

Oberwolfach Workshop:

Partial Differential Equations

Dates:

23 - 29 July 2023 (Code: 2330)

Organizers:

Guido De Philippis, New York

Ailana M. Fraser, Vancouver

Felix Schulze, Coventry

Partial Differential Equations are not only at the heart of numerous fundamental theories in the natural sciences and engineering, but are a core subject in pure mathematics itself. This workshop focuses on PDEs arising in geometry and variational problems and related fields. More precisely the workshop will focus on questions regarding existence, uniqueness, and qualitative behavior of solutions in topics such as

- geometric variational problems;
- geometric flows;
- minimal surfaces and geometric measure theory;
- free boundaries and the structure of nodal sets of eigenfunctions;
- metrics maximising the first eigenvalue.