

Homotopical algebra and higher structures

Oberwolfach, September 19-26 2021

The workshop will focus on the following themes:

- (1) Operads, abstract homotopy theory, higher categories and related higher dimensional algebraic structures;
- (2) Applications of these structures in algebraic geometry, topology, algebra and mathematical physics.

Higher dimensional algebraic structures have seen some tremendous developments over the last couple of decades, are still in the state of rapid progress and attract attention of first rate mathematicians throughout the world. The workshop is intended to bring together researchers in pure mathematics using in their work ideas, methods and motivation from the theory of operads and operadic algebras, infinity categories and homotopical algebra. The idea of the meeting is to assemble mathematicians that do not usually attend the same conferences, in order to promote intradisciplinary collaboration.

Mathematics Subject Classification: 518D-XX (Categories with structure), 18G55 (Homotopical algebra), 18D50 (Operads), 18E30 (Derived categories, triangulated categories), 16E45 (Differential graded algebras and applications).