Abstract

Oberwolfach Workshop:

C*-Algebras

Dates:

7 - 13 August 2022 (Code: 2232)

Organizers:

Dimitri Shlyakhtenko, Los Angeles
Andreas Thom, Dresden
Stefaan Vaes, Leuven
Wilhelm Winter, Münster

The subject of operator algebras is a very active area of mathematics which, since its inception in the 1940s, has always been driven by interactions with other fields of mathematics and physics. The scope of these interactions is very wide, ranging over dynamical systems, (non-commutative) geometry, functional analysis, (geometric) group theory, topology, random matrices, harmonic analysis and quantum information theory.

The goals of this workshop are to stimulate new collaborations across these fields of mathematics, to disseminate recent progress by giving participants a global view on the subject and to specially focus on two important developments: the solution of the Connes embedding problem by methods in quantum information theory and the progress on noncommutative dynamical systems, both in the topological C*-algebra context and the measurable von Neumann algebra setting.