

## **Abstract**

Oberwolfach Workshop:

### **Set Theory**

Dates:

**5 April - 11 April 2020** (Code: 2015)

Organizers:

**Ilijas Farah, Toronto**

**Ralf Schindler, Münster**

**Dima Sinapova, Chicago**

**W. Hugh Woodin, Cambridge MA**

Set theory continues to experience dramatic progress, both in pure set theory, with its fundamental techniques of forcing, large cardinals, and inner model theory, and in applied set theory, with its deep connections to other areas of mathematics. Hot topics include: (Pure Set Theory) Forcing axioms, iteration theorems for various classes of forcings, cardinal characteristics and descriptive set theory of the continuum and of generalized Baire spaces, HOD (the hereditarily ordinal definable sets), inner model theory and the core model induction, singular cardinal combinatorics and cardinal arithmetic (pcf theory), partition theorems, Borel reducibility; (Applied Set Theory) Borel and measurable combinatorics, structural Ramsey theory, set theory and operator algebras, topological dynamics and ergodic theory, set theory and Banach spaces, metric structures. This workshop intends to explore topics in both pure and applied set theory which have experienced the greatest development in recent years.