

## **Interactions between Algebraic Geometry and Noncommutative Algebra Abstract**

**Abstract** This workshop will explore the interactions between noncommutative algebra/representation theory on the one hand and algebraic geometry on the other, with particular emphasis on topics where such interactions have led to substantial recent progress.

Particular examples where such an interaction has occurred and which will provide a focus for the workshop include:

- (1) noncommutative projective geometry and interactions with classical geometry;
- (2) noncommutative resolutions of singularities;
- (3) differential operators and symplectic deformations;
- (4) Hall algebras and generalizations.