

**ASYMPTOTIC PHENOMENA IN LOCAL ALGEBRA AND  
SINGULARITY THEORY  
DEC 11 - DEC. 17, 2016, MEETING 1650  
ORGANIZED BY A. CONCA, S.D. CUTKOSKY AND S.B. IYENGAR**

ABSTRACT. In recent years there has been fascinating progress on asymptotic phenomenon in commutative algebra, inspired in part, and contributing to, developments in singularity theory, algebraic geometry, and combinatorics. The workshop is devoted to highlight the most significant developments, with the aim of spurring further progress in the field. Some of the main topics that will be discussed include:

- 1) Toric rings, Hirsch conjectures and matroids
- 2) Asymptotic behaviors of syzygies over Veronese algebras
- 3) Resolution of singularities
- 4)  $F$ -singularities and Frobenius asymptotics
- 5) Complete intersection rings