ICTS Colloquium

Title : Classifying Polynomials from a Computational
Perspective

Speaker : Manindra Agrawal, Indian Institute of Technology,
Kanpur

Date : Monday, June 10, 2019

Time : 3:00 PM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : We consider the problem of classifying polynomials
according to difficulty of computing them. We argue that
this approach gives better classification of polynomials
according to their properties compared with the usual ones
like degree or sparsity. After giving the definition, we
identify two classes of polynomials that give rise to the
central question in algebraic complexity theory and
introduce the Polynomial Identity Testing (PIT) problem
which has come to play a key role in resolving this
question. Finally, we summarize the progress made in the
past two decades in solving the PIT.