

## TUESDAY Colloquium

Beginning with the familiar formula for the roots of a quadratic equation, we will trace the development of some of the major ideas in the theory of equations. This will be laced with some amusing stories, mainly from the renaissance period, of the events and persons that played a major role in the development of the subject. Along the way, we will try to answer the kind of basic questions that undergraduate students are likely to ask themselves or their teachers such as the following: is there a formula for the roots of a cubic equation, a quartic equation, and in general, an equation of any degree? Is there a notion of discriminant for polynomials of any degree similar to the discriminant of a quadratic?

A nodding acquaintance with the rudiments of high school algebra should be sufficient prerequisite for this talk.

### Solving Polynomial Equations – A Journey through Renaissance

by Prof. Sudhir Ghorpade  
IIT Bombay, Mumbai

Prof. Sudhir R. Ghorpade, currently a member of the Department of Mathematics, IIT Bombay, did his Ph.D. from Purdue University, USA. He joined the Department of Mathematics, IIT Bombay in 1989, from where he had done his master's and received the silver medal in his student days. He has several publications to his credit in the areas of algebraic geometry, coding theory, combinatorics and commutative algebra and has guided Ph.D. students as well as several project students.

He is on the editorial board of Resonance and the International Journal of Information and Coding Theory. He is a coauthor of two books on Calculus and Analysis. He has received the TWAS Research Grant Award in 1993. He has also received the AICTE Career Award for Young Teachers in 1998. He has also been elected Fellow, National Academy of Sciences, India, October 2010.



**Tuesday, 18<sup>th</sup> October at 1545 hrs.**

**Seminar Room (PFAG14), Prefabs, Near Annabhau Sathe Bhavan  
University of Mumbai, Vidyanagari Campus, Kalina**