

Speaker: C. S. Rajan

Title: On numbers of the form x^2+5y^2 , Lagrange's work, reduction theory and composition of quadratic forms.

Abstract: We will cover the topics ranging from conjectures of Fermat and Euler on representing integers by forms of the type x^2+ny^2 , to the work of Lagrange on these questions followed by the work of Gauss on the composition of quadratic forms. The work of Lagrange and Gauss can also be considered as the beginnings of reduction theory, and also the forerunner of Bhargava's work on composition of cubic forms.