ICTS Postdoc/Graduate Student Seminar Series

Title : Minimal and Finite type of surfaces

Speaker : Mohammed Saleem Lone, ICTS-TIFR, Bangalore

Date : Friday, October 26, 2018

Time : 11:15 AM

Venue : Emmy Noether Seminar Room, ICTS Campus, Bangalore

Abstract : A minimal surface is area minimiser locally. In actual, these are the critical points of the area functional under normal variation. So the problem is that given a particular boundary can we find a minimal surfaces with this boundary. Its proof won the first field medal in mathematics. If you dip a smooth wire in soap water, then the resulting soap film is minimal. We will see construction and importance of minimal surfaces. A finite type of surface(X) is a surface whose coordinate functions are written as the eigen functions of Laplace Beltrami operator on X. So this can be considered as generalized class of minimal surfaces. If the time permits we will see a more generalized class of surfaces called as Weingarten surfaces.

Note: This will be an ongoing biweekly seminar series (Fridays, 11:15 am) by the ICTS postdocs and graduate students