



21 November, 2023

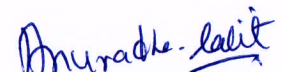
Ph.D. Thesis Defense

Speaker : *Mohit Upmanyu*
Title : *Formal geometry of singularities*
Date & Time : *Wednesday, 22 November, 2023 at 11.30 A.m.*
Venue : **Lecture Room (A369) as well as via Zoom**

Abstract

We define when a subset of the formal power series ring is called an AmAC, prove some elementary properties of AmAC, and use them to prove the following theorem:

Fix K an uncountable algebraically closed field and fix $A = K[[x_1, x_2, \dots, x_n]]$. Let X be an irreducible subvariety of $\text{Spec}(A)$ and further assume X is not embedded in any hyperplane. Let H_i be a sequence of hyperplanes in $\text{Spec}(A)$ such that the dimension of the singular locus of $X \cap H_i$ is d , and multiplicity of the singular locus tends to infinity as i tends to infinity. Then there is a hyperplane H such that the singular locus of $X \cap H$ is of dimension $> d$.


Anuradha Prajapati

Zoom Link and Credentials

<https://tifr-res-in.zoom.us/j/97772038607>

Meeting ID: 977 7203 8607

Passcode: 127256
