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SEMINAR

Of

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Date & Time

18th December, 2024; 02:30 PM

Venue

**L-Infinity, Stat-Math Unit
5th Floor, A N Kolmogorov Bhawan
Indian Statistical Institute, Kolkata 700108**

Title of the Talk

**LEFSCHETZ HYPERSURFACE SECTION THEOREM
FOR BRAUER GROUPS**

Abstract

Let X be a smooth projective variety over a field k of characteristics $p \geq 0$, and let Y be a general smooth hypersurface section. Lefschetz hypersurface section theorem roughly states that the geometry of X is closely related to the geometry of Y . For instance, one knows the canonical maps $\text{Pic}(X) \rightarrow \text{Pic}(Y)$ and $\pi_1^{e^t}(Y) \rightarrow \pi_1^{e^t}(X)$ are isomorphisms, if $\dim X \geq 4$.

In this talk, we present a similar result for the Brauer group $\text{Br}(X) = H^2_{e^t}(X, G_m)$. Furthermore, when X is not necessarily projective but is the complement of a normal crossing divisor in a smooth projective variety, we also discuss an analogous result for Brauer groups with modulus.

All are Cordially Invited