1162-14-59 **Owen Finn Barrett*** (ofb@uchicago.edu), Univ of Chicago, 5734 S University Ave, Chicago, IL 60637. *The derived category of the abelian category of constructible sheaves.*

Nori proved in 2002 that given a complex algebraic variety X, the bounded derived category of the abelian category of constructible sheaves on X is equivalent to the usual triangulated category $D(X)$ of bounded constructible complexes on X. He moreover showed that given any constructible sheaf $\mathcal{F}$ on $\mathbf{A}^n$, there is an injection $\mathcal{F} \hookrightarrow \mathcal{G}$ with $\mathcal{G}$ constructible and $H^i(\mathbf{A}^n, \mathcal{G}) = 0$ for $i > 0$.

In this talk, I will explain how to extend Nori's theorem to the case of a variety over an algebraically closed field of positive characteristic, with Betti constructible sheaves replaced by ℓ-adic sheaves. This is the case $p = 0$ of the general problem which asks whether the bounded derived category of p-perverse sheaves is equivalent to $D(X)$, resolved affirmatively for the middle perversity by Beilinson, and has possible applications to a future motivic sheaf theory and to defining a six-functor formalism for algebraic stacks. (Received August 21, 2020)