

# Algebra and Geometry Seminar

**Speaker:** Chirantan Chowdhury (University of Duisburg-Essen)

**Title:** Motivic Homotopy Theory of Algebraic Stacks.

**Abstract:** In this talk, we discuss the extension of motivic homotopy theory developed by Morel and Voevodsky in the setting of algebraic stacks and establish a six functor formalism. The class of algebraic stacks that we consider includes many interesting examples: quasi-compact and quasi-separated algebraic spaces, local quotient stacks and moduli stack of vector bundles. The talk starts with giving an overview of algebraic stacks, motivic homotopy theory and the language of  $\infty$ -categories developed by Lurie which shall lead us to the statement of the main theorem. If time permits, we give a brief idea about the proof of the theorem.