Jacob Lurie: **Roots of Unity in Intermediate Characteristic**

In classical algebraic geometry, there is often a stark difference between the behavior of fields of characteristic zero (such as the complex numbers) and fields of characteristic p (such as finite fields). For example, the equation x^p = 1 has p distinct solutions over the field of complex numbers, but only one solution over any field of characteristic p. In this talk, I'll give an introduction to K(n)-local homotopy theory, which in some sense interpolates between characteristic zero and characteristic p, and describe some curious behavior of roots of unity in these intermediate regimes.