Kiran Kedlaya:Â **Â (phi, Gamma)-modules on analytic, adic, and perfectoid spaces**

Until recently, p-adic Hodge theory tended to break down into two related but very distinct subfields: the study of algebraic varieties and comparison isomorphisms, and the study of p-adic Galois representations and their associated structures. In this talk, I will try to indicate how these two subfields are coming together, by explaining how the study of p-adic Galois representations is really the case "over a point" of a more general theory of p-adic etale local systems. In particular, the linear algebraic data used to describe Galois representations, such as (phi, Gamma)-modules, admit a natural generalization described in the language of perfectoid spaces, and the comparison isomorphism for analytic spaces described in Scholze's plenary lectures amounts to a statement about higher direct images in the category of geometric (phi, Gamma)-modules. Based on ongoing joint workÂ with Ruochuan Liu (on which Liu will also speak in this session).