1086-11-773 **Kiran S. Kedlaya***, Department of Mathematics, University of California, San Diego, 9500 Gilman Drive #0112, La Jolla, CA 92093. *Towards global* (φ, Γ)*-modules and comparison isomorphisms.*

This is a followup to the talk by Chris Davis in the same session. The central result of p-adic Hodge theory is the comparison isomorphism linking two different cohomology theories for algebraic varieties over p-adic fields, namely etale cohomology with p-adic coefficients and algebraic de Rham cohomology. One can formally restate the comparison isomorphism as a third cohomology theory for p-adic varieties with values in the category of (φ, Γ)-modules (certain modules over a p-adic period ring equipped with extra monoid actions). This suggests the possibility of developing a more global theory of (φ, Γ)-modules providing a target category for a cohomology functor on the category of algebraic varieties over number fields. The ultimate goal would be to recover global etale cohomology, L-functions, and p-adic L-functions from the (φ, Γ)-module. Besides some speculations on the shape of such a theory, we provide a modest concrete step in the right direction by showing how to add one extra structure to the usual p-adic (φ, Γ)-modules: a descent datum on de Rham cohomology from a p-adic field to a number field. (Received September 12, 2012)