Abstract:
Deninger and Werner developed an analogue for $p$-adic curves of the classical correspondence of Narasimhan and Seshadri between stable bundles of degree zero and unitary representations of the topological fundamental group for a complex smooth proper curve. Using parallel transport, they associated functorially to every vector bundle on a $p$-adic curve whose reduction is strongly semi-stable of degree 0 a $p$-adic representation of the étale fundamental group of the curve. They asked several questions: whether their functor is fully faithful and what is its essential image; whether the cohomology of the local systems produced by this functor admits a Hodge-Tate filtration; and whether their construction is compatible with the $p$-adic Simpson correspondence developed by Faltings. We will answer these questions in this talk.

Special Note:
There will be a pre-talk at 1:15PM.

Host: Kiran Kedlaya

Thursday, January 25, 2018
2:00 PM
AP&M 7421