Hui Gao (Purdue University). "Galois lattices and strongly divisible lattices."

Abstract: Integral p-adic Hodge theory is the study about integral lattices in Galois representations, and it has proved to be extremely useful in all kind of applications. In this talk, we will discuss about Breuil's classification of integral lattices in semi-stable Galois representations via the so called "strongly divisible lattices". By generalizing Tong Liu's work to the "borderline" case, we now have a complete proof of Breuil's conjecture.