Rebecca Bellovin: Local \varepsilon-isomorphisms in families

Given a representation of Gal_{Q_p} with coefficients in a p-adically complete local ring R, Fukaya and Kato have conjectured the existence of a canonical trivialization of the determinant of a certain cohomology complex. When R=Z_p and the representation is a lattice in a de Rham representation, this trivialization should be related to the \varepsilon-factor of the corresponding Weil--Deligne representation. Such a trivialization has been constructed for certain crystalline Galois representations, by the work of a number of authors. I will explain how to extend these trivializations to certain families of crystalline Galois representations. This is joint work with Otmar Venjakob.