Fontaine's rings and p-adic L-functions

This seminar will cover the study of p-adic zeta functions in the case of the cyclotomic $\mathbb{Z}_p$-extension of a number filed F. The reading course and seminar in the summer covered the Coleman power series associated to norm compatible elements and the Coates-Wiles homomorphism. We will now switch to p-adic Hodge theory and cover Fonatine's theory of $\phi - \Gamma$-modules. We will then revisit the Coates-Wiles homomorphism from this set-up as well as the general machinery of p-adic L-functions. This will be independent of the earlier summer seminar as we will recall the necessary results.