SEMINAR SUJATHA (I)
"p-ADIC L-FUNCTIONS AND FONTAINE'S RINGS"
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ABSTRACT. This seminar covers the study of p-adic zeta functions in the case of the cyclotomic $\mathbb{Z}_p$-extension of a number filed F. We begin with the Coleman power series associated to norm compatible elements and the Coates-Wiles homomorphism. We will then switch to p-adic Hodge theory and cover Fonatine's theory of (φ, Γ)-modules. We will then revisit the Coates-Wiles homomorphism from this set-up as well as the general machinery of p-adic L-functions. We thank all the speakers for speaking at the seminar and for their feedback on preparing these notes, especially Sujatha for her expertise and for her encouragement for us to write this up.

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