1086-11-842 **Hatice Sahinoglu*** (haticesahinoglu@gmail.com). *On the Independence of Heegner Points.*

In this talk we are going to describe the construction of a particular set of algebraic points, which will be called as Heegner Points, on elliptic curves. Then we will investigate under which constraints Heegner points are independent. We give a sufficient condition on the class numbers of distinct quadratic imaginary fields so that on a given CM elliptic curve over $\mathbb{Q}$ with fixed modular parametrisation, the Heegner points associated to (the maximal orders of) the quadratic imaginary fields are linearly independent. This result extends the results of Rosen and Silverman from the non-CM elliptic curves to the CM ones. We will also show how to generalize the independence of Heegner points associated to maximal orders result to the Heegner points associated to orders of an an arbitrary fixed conductor of quadratic imaginary fields. We will look at independence of Heegner points arising from Shimura curve parametrisation and p-adic uniformisations. Finally, if time permits, we will build tools to investigate the independence of the Heegner points on higher dimensional abelian varieties. (Received September 13, 2012)