Extensions of elliptic curves

Matthew Papanikolas (`map@math.brown.edu`)
Brown University
Department of Mathematics
Providence, RI 02912
USA

Abstract. We will discuss the group of extensions of one elliptic curve by another. Over the complex numbers this group is infinite and its structure is known by a theorem of S. Lichtenbaum. We will show that over number fields this group is finite, and we will present techniques for determining its order. Joint work with N. Ramachandran.