# Algebra and Number Theory Seminar 

# Quadratic field, cubic equation and the first derivative of L-functions 

Wei Zhang<br>Harvard University


#### Abstract

There has been a long history on how to construct all rational solutions of cubic equations of two variables like $y^{2}=4 x^{3}+a x+b$. We will see how imaginary quadratic fields, together with the study of some L-functions, can be used to partially solve the question. We will also mention some recent progress that leads us to a broader perspective.


Thursday, October 21, 2010, 3:00 pm
Mathematics and Science Center: E408

## Mathematics and Computer Science Emory University

