Detecting community structure within networks is important in a variety of practical applications including social networks, biological networks, technological networks, and many more. Modularity optimization is a popular method for detecting communities of nodes within networks. It was shown by Fortunato and Barthelemy that modularity optimization is subject to a resolution limit wherein communities smaller than a certain size cannot be detected. In this talk, we will examine the resolution limit for certain classes of benchmark graphs, and discuss how the inclusion of a multi-resolution parameter affects the ability to detect communities. (Received August 07, 2015)