

# Seminar Announcement

*İYTE, Department of Mathematics*

## QUADRATIC NUMBER FIELDS AND BINARY

## QUADRATIC FORMS

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### **Abstract**

In this talk, we will first introduce one of the most important invariant of a number field: its class group. We'll try to explain its key role in arithmetic through examples and then list some open problems in the quadratic case most of which were stated by Gauss in his *Disquisitiones Arithmeticae* and are now more than 200 years old.

This will be followed by a brief introduction to binary quadratic forms. We will then use a graph theoretical interpretation, called *çark*, to attack the above problems and report on some recent results obtained.

The talk will be accessible to undergraduates with some knowledge in abstract algebra.

**Date** : 06 March 2015 (Friday)

**Location** : İYTE, Department of Mathematics

**Time and Place:** 14:30, MD 122 (Seminar room)