# DOKUZ EYLÜL UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF MATHEMATICS

### **SEMINAR**

## Harmonic Numbers and Their Properties

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#### ABSTRACT

Harmonic numbers are the partial sums of the harmonic series. These numbers and their extensions have been studied extensively and they are equipped with a lot of combinatorial and analytic properties. In this talk, first we will survey the basic known results on harmonic numbers due to Euler and Ramanujan. Then, we introduce their generalizations. We investigate them in terms of analytic and divisibility properties. We show that they are closely related to the distribution of prime numbers.

DATE & TIME: 30 December 2016, Friday at 14:00

SEMINAR ROOM: B206

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