

## Seminar Announcement

## Speaker: Rajeh EID Atılım University, Ankara

An alternative way to compute the exact values for some infinite series

## Abstract

Iterative formulas to compute the exact values of series of forms

$$\sum_{n=1}^{\infty} \frac{1}{n^{2k}} \qquad \sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{n^{2k}} \qquad \sum_{n=1}^{\infty} \frac{(-1)^n}{(2n+1)^{2k-1}}$$

have been introduced, where k is any positive integer. Mainly, the Fourier series representations of the simple power functions  $x^{2k}$  and  $x^{2k+1}$  in the interval  $-\pi,\pi$  are used in the derivation of the recursive formulas. Exact results for the sum of such series are then given for some specific values of k.

**DATE:** June 25, 2015

TIME: 16:20

PLACE: Cengiz YENER M Conference Hall

All interested people are cordially invited.

After the seminar, some cookies and soft drinks will be served.