CCSU DEPARTMENT OF MATHEMATICAL SCIENCES

VIRTUAL COLLOQUIUM

Friday, September 25 3:00 – 4:00 PM

https://ccsu.webex.com/meet/gotchev

THE BASEL PROBLEM

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Abstract: In this talk we will talk about the Basel Problem and its solution. The Basel Problem asks about the exact value of the infinite sum

$$1 + \frac{1}{4} + \frac{1}{9} + \frac{1}{16} + \dots + \frac{1}{n^2} + \dots$$

We will begin with the history of the problem and will say a few words about some mathematicians related directly or indirectly to it, including some mathematicians who were involved in disputes or controversy from the beginning of the 18th century. We will mention, among others, the names of Pietro Mengoli, the mathematicians from the Bernoulli family, l'Hôpital, Leibniz, Newton, and Euler.

After that we will talk about the solution of the Basel Problem and some of its generalizations.

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