Boğaziçi
MATH GRAD SEMINAR

The Infinitude of Primitive Abundant Numbers in Arithmetic Progressions

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Abstract:

A number n is said to be abundant if the sum of all divisors of n is greater than $2n$ and deficient if it is less than $2n$. Then a number is said to be primitive abundant if it is abundant and all of its proper divisors are deficient. The main result is that if a and b are positive integers with a deficient greatest common divisor, the arithmetic progression $ak+b$ contains infinitely many primitive abundant numbers. We will then discuss some conjectures about the distribution of primitive abundant numbers.

Date : Monday, March 27, 2023
Time: 14:00
Place: TB130