

Anatomy of a Number

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A Turán–Kubilius inequality for friable integers,
with applications

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Abstract

This talk was devoted to provide an account on several *joint papers with Tenenbaum*, in which we investigate the anatomy of friable (i.e. without large prime factors) integers. In particular, we proved a general form of the Turán–Kubilius inequality over friable integers that is valid without any restriction on the friability parameter.

Several consequences of the above described estimates have been presented, including: friable extensions of the Erdős–Wintner theorem and of Daboussi’s theorem, as well as an effective theorem for describing the structure of the set of prime factors of a stochastic friable integer.