

An upper bound on Robert Brownlee's Erdős number

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Abstract

The Erdős number is a measure of the collaborative distance between an author and the late prolific Hungarian mathematician Paul Erdős. This article establishes an upper bound on Robert Brownlee's Erdős number.

Introduction

Paul Erdős published extensively in mathematics. At the time of his death, in 1996 at the age of 83, Erdős had around 1500 papers to his name. The Erdős number is defined inductively as follows:

- Paul Erdős has Erdős number 0.
- The Erdős number of author A is one plus the minimum among the Erdős numbers of all the authors with whom A has coauthored a mathematical paper.

At the time of writing, Erdős had 504 direct coauthors – each of whom have Erdős number 1. Those people we have collaborated with any of these 504 (not including Erdős himself) have Erdős number 2, and so on. The Erdős number of the second kind is defined analogously but with the stipulation that only mathematical papers with at most two coauthors are considered.

Erdős numbers

Now, we state and prove an upper bound on Robert Brownlee's Erdős number. A bound on Robert Brownlee's Erdős number of the second kind follows immediately.

Theorem. *Robert Brownlee has Erdős number less than or equal to 4.*

Proof. Consider the publications [3, 2, 4, 1]. □

Corollary. *Robert Brownlee has Erdős number of the second kind at most 4.*

References

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