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Erdős number

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The shortest number of collaborations with other mathematicians through which a particular mathematician can be connected to Paul Erdős is the *Erdős number* of that mathematician. For example, N. J. A. Sloane coauthored *Sphere Packings, Lattices and Groups* with John Horton Conway. In turn, Conway coauthored a paper with Erdős in 1979, thus Sloane's Erdős number is 2. Since Erdős died in 1996, 2 is the lowest Erdős number a mathematician working today can achieve.

One way to visualize the Erdős number is by drawing up a collaboration graph G whose vertex set consists of all persons, where two vertices x and y are connected by an edge if and only if x and y have a joint publication. Then the Erdős number of a person x is the distance in G (possibly infinity) of x from Erdős.