

[Adamaszek, Michał](#)

**Efficient enumeration of graceful permutations.** (English) Zbl 1297.05007  
*J. Comb. Math. Comb. Comput.* 87, 191-197 (2013).

Summary: A graceful  $n$ -permutation is a graceful labeling of an  $n$ -vertex path  $P_n$ . In this paper we improve the asymptotic lower bound on the number of such permutations from  $\Omega((5/3)^n)$  to  $\Omega(2.37^n)$ . This is a computer-assisted proof based on an effective algorithm that enumerates graceful  $n$ -permutations. Our algorithm is also presented in detail.

**MSC:**

[05A05](#) Permutations, words, matrices  
[05A15](#) Exact enumeration problems, generating functions  
[05C38](#) Paths and cycles

Cited in 4 Documents

**Keywords:**

[graceful  \$n\$ -permutations](#); [enumeration](#)