

Rational approximations for Catalan's constant

Walter Van Assche

Department of Mathematics
KU Leuven

Catalan's constant $G = \sum_{k=0}^{\infty} (-1)^k / (2k + 1)^2$ is closely related to π^2 but so far it is not known whether or not this is an irrational number. One possible way to prove irrationality is to construct rational approximants that are better than possible for a rational number. We will give a few constructions for rational approximants but so far none of them is good enough to prove irrationality's equation.