

Van Ravenstein, Tony

The three gap theorem (Steinhaus conjecture). (English) Zbl 0663.10039
J. Aust. Math. Soc., Ser. A 45, No. 3, 360-370 (1988).

Author's abstract: "This paper is concerned with the distribution of N points placed consecutively around the circle by an angle of α . We offer a new proof of the Steinhaus Conjecture which states that, for all irrational α and all N , the points partition the circle into arcs or gaps of at least two, and at most three, different lengths. We then investigate the partitioning of a gap as more points are included on the circle. The analysis leads to an interesting geometrical interpretation of the simple continued fraction expansion of α ."

Reviewer: [P.Kiss](#)

MSC:

[11J71](#) Distribution modulo one
[11J04](#) Homogeneous approximation to one number
[11B75](#) Other combinatorial number theory

Cited in **2** Reviews
Cited in **25** Documents

Keywords:

[partition of circle](#); [distance of points](#); [Steinhaus Conjecture](#); [simple continued fraction](#)