

University of Colorado
Department of Mathematics
Problem of the Month
December 2014 - January 2015

An infinite forest occupies the entire plane and consists of round trees of diameter one. No matter where you stand in the forest and in which direction you look, you don't see the light between the trees. Fix a point O in the forest and denote by A_n the number of trees within the distance n from O . Show that the series

$$\sum_{n=1}^{\infty} \frac{A_n}{n^2}$$

diverges.