

Covering of a set \mathcal{A} with fractal dimension $D = \frac{\log 8}{\log 4} = 1.5$

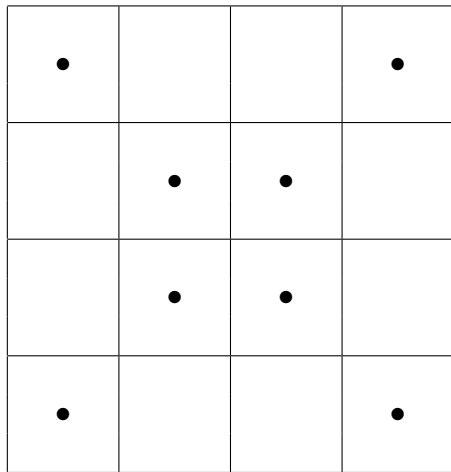
Squares with a \bullet are used in the covering (these are the *covering squares*). The set \mathcal{A} lies in the intersection of all the covering squares. The covering is consistent because only squares that are inside the covering squares at all larger scales can be used in the covering at smaller scales.

$$\begin{aligned} a_n &= 8^n \\ s_n &= (1/4)^n \end{aligned} \implies \log(a_n) = \frac{\log 8}{\log 4} \log(1/s_n)$$

First stage: $a_1 = 8, \quad s_1 = (1/4)$

Final stage: see the link

www.math.toronto.edu/courses/335/W03/cover_2.jpg



Second stage: $a_2 = 8^2, \quad s_2 = (1/4)^2$

