

Questões?

O Conjunto de Cantor



Georg Cantor



$$C_1 = [0, 1]$$



$$C_2 = \left[0, \frac{1}{3}\right] \cup \left[\frac{2}{3}, 1\right]$$



$$C_3 = \left(\left[0, \frac{1}{9}\right] \cup \left[\frac{2}{9}, \frac{1}{3}\right] \right) \cup \left(\left[\frac{2}{3}, \frac{7}{9}\right] \cup \left[\frac{8}{9}, 1\right] \right)$$



$$C_n = \left(\left[0, \frac{1}{3^{n-1}}\right] \cup \left[\frac{2}{3^{n-1}}, \frac{1}{3^{n-2}}\right] \right) \cup \dots \cup \left(\left[\frac{2}{3^{n-2}}, \frac{3^{n-2} - 2}{3^{n-1}}\right] \cup \left[\frac{3^{n-2} - 1}{3^{n-1}}, 1\right] \right)$$

O **Conjunto de Cantor** é o que fica quando você “termina” o processo.

Em outras palavras:

$$C = \text{Conjuto de Cantor} = \bigcap_{n=1}^{\infty} C_n$$

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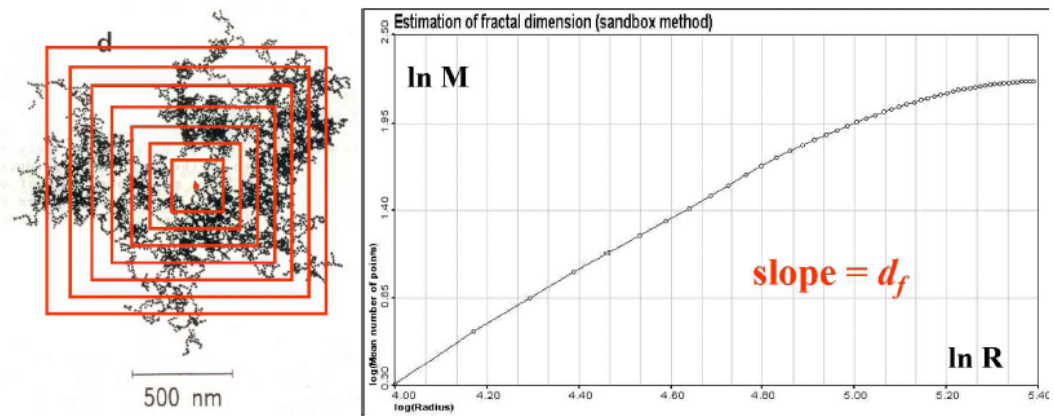


Figure 3.3: The sandbox method of determining the fractal dimension (left) and the results of the analysis (right).