Visualization of fractal models using MatLab

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Abstract

Fractal is a geometric object that contains itself in multiple scales. Famous mathematical examples including Sierpinski triangle, von-Koch curve, Mandelbrot set, etc. In contrast to that of traditional geometric shapes, fractal is characterized by self-similar property in which smaller parts of the object resemble the whole set. In this workshop, we will learn (1) the method to construct fractal model known as iterated function systems, and (2) the use of algorithm to visualize the fractals. Numerous codes for visualizing the fractal are available and can be accessed from online sources. Here, we make use of MatLab-based code which allow the students to practice the simulation in simple manner.