

ZMATH 2000f.04572

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Multiple reduction copy machines and fractals.

UMAP Modul. 2000, 81-107 (2000).

This Module uses the idea of the Multiple Reduction Copy Machine (MRCM) to explain iterated function systems and fractals. The purpose is not to develop the theory completely but to explain enough in order to create fractals on the computer. The Module describes computer animation that is easy to use but requires some basic understanding of underlying theory. The computer animation is a Java applet that can be accessed on the Internet with a Java-enabled browser at <http://www.warren-wilson.edu/~fsolomon/ZZFract.html>. The animation allows graphical input of the transformations defining the fractal - the lenses, as they are called in the terminology of the Multiple Reduction Copy Machine. Using the animation while reading this Module will provide much insight into the nature of self similarity - a central defining characterization of fractals. (orig.)

Classification: I65