

L-systems

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CS151: Computational Thinking: Visual Media

Lecture 27, Spring 2021

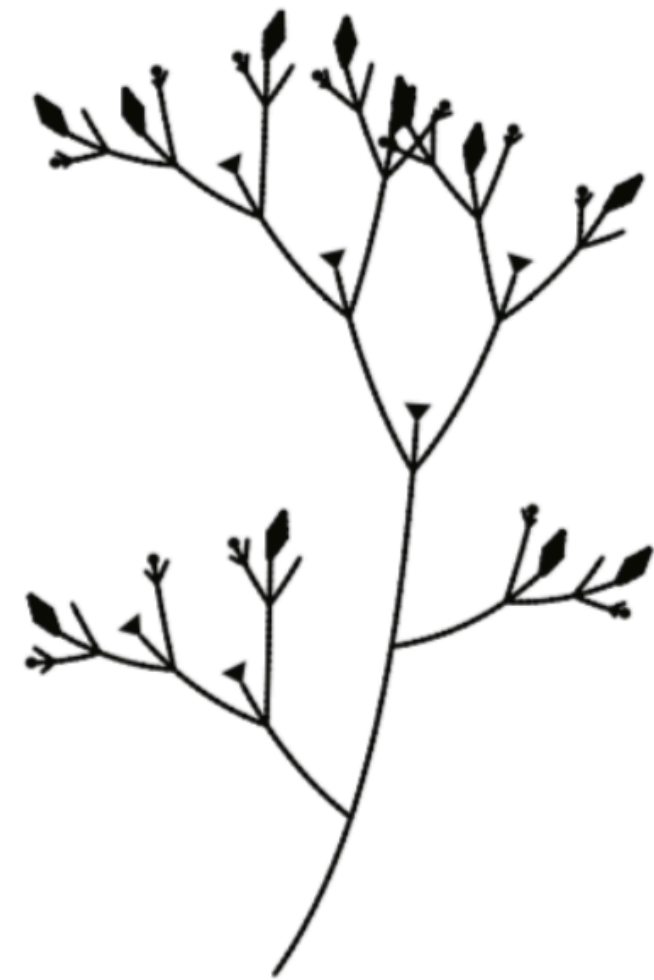
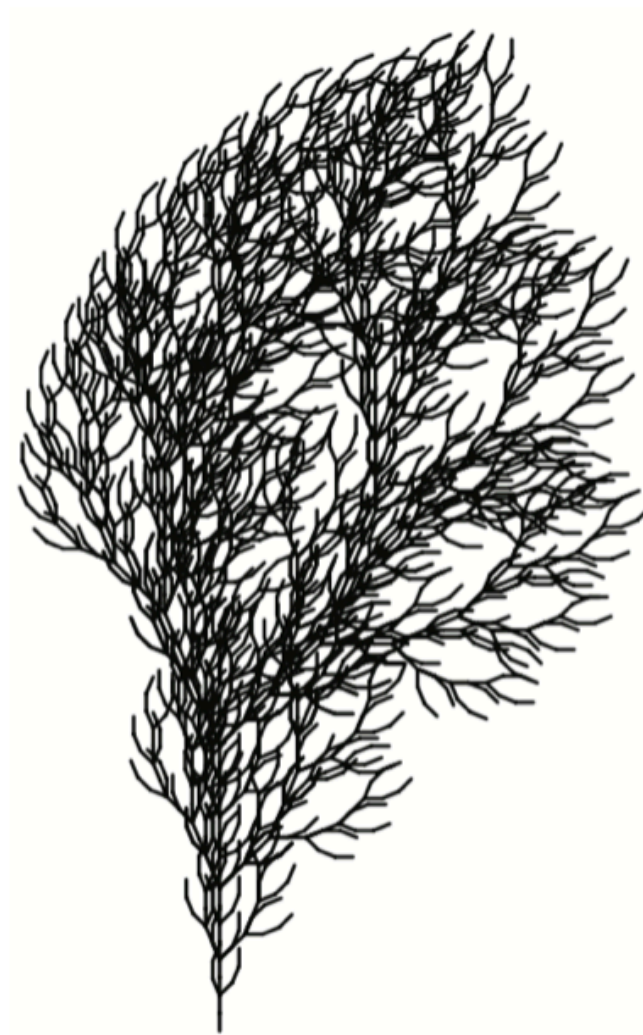
Monday April 19

Lindenmayer Systems (L-systems)

Idea: Use characters in a string to tell turtle what the do.

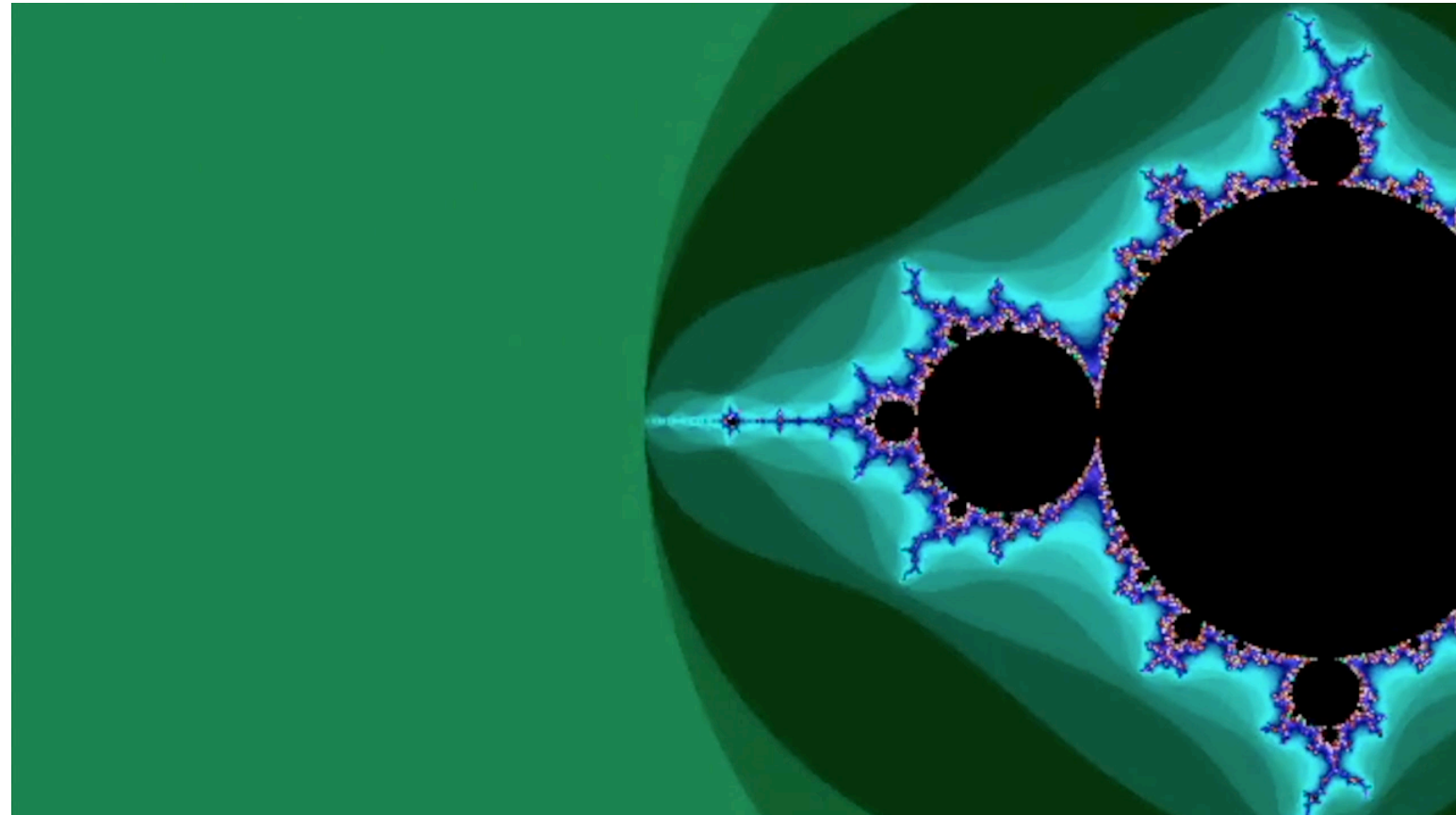
- Example: F means go forward, - means turn right, + means turn left.
- Drawing a square: ' F+F+F+F+'

Can be used to draw photo-realistic trees/
plants



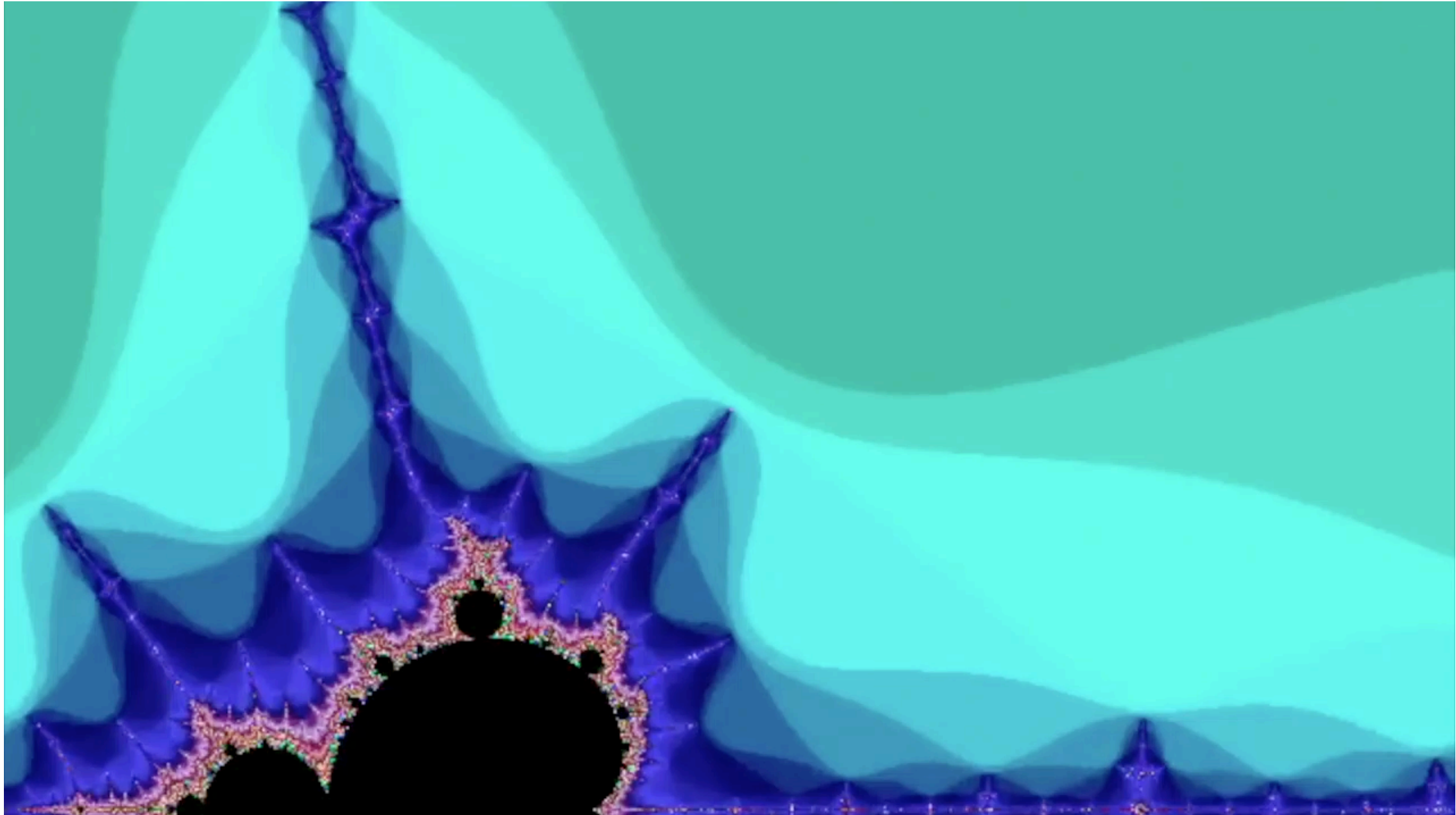
Can be used to draw fractals

What is a fractal?



Mandelbrot Set

Mandelbrot Set



Koch snowflake



Let's see how we can use L-system to make a Koch snowflake fractal