Notes of video-meeting wrapping up SPP and beginning Bachelor's Project

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1 Short Programming Project

1.1 Wrapping up the SPP

1.1.1 Presentation

The group still meets (digitally?) every two weeks, so presentation is possible.

- about 15 minutes
- with slides

1.2 Turning the SPP into a paper

thorough notes about this are in the shared OverLeaf document.

- Sections should be balanced

2 Bachelor's Project

2.1 Theme

Visualizing Iterated Function Systems when zooming in.

2.1.1 Ideas:

Two ideas W-M has:

1. Render points using 'chaos game' in 2D point-cloud These points can then be re-used between frames. Goal: less work per rendered frame and thus faster speeds.
2. Move zoomed-in camera to shallower viewport that is identical because of self-similarity Goal: Keeping the camera from zooming in too far, which allows us to keep re-using points.

2.2 Suggestions by Jiři

2.2.1 Maybe investigate 'IFS flattening'?

Turning multiple layers of transformations into a single (wider) layer of transformations in a 'preparation' step before running e.g. the chaos game.

2.2.2 Point cloud splatting

It might make sense to look into how modern GPUs do (3D) point-cloud rendering because that might be of use to how to efficiently do 2D point-cloud rendering.

2.3 Formalities

2.3.1 Info

- The bachelor's project takes roughly 10-12 weeks full-time.
- The starting form can be found in Nestor.
- After 6 weeks there is a formal 'midterm review' (with separate form).

2.3.2 Decisions

W-M will start with the project next week, and therefore try to finish around week 32 (beginning of August).

2.3.3 Second Supervisor

Jiři will ask PhD-student Gerben Hettinga. Hope he says yes!