A Brief Outline on How the Visualisation Will Look

The visualization is currently organized into two pages. The first page, which introduces some key and fundamental concepts such as the definition of stochastic processes and random walks, is its own section, while the second page has three sections. This document will briefly outline how the visualization will look.

Page 1 – What is a random walk?

A screenshot of a cell phone

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Fig. 1 Rough Overview of Page 1

A screenshot of a cell phone

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Fig. 2 Labeled Overview of Page 1

On the left, texts and title block should take up however large space they usually are set to in the new skeleton. On the right there should be the visualizer which spans all of the area, except for the bottom bit, which I want to reserve for some captions on the graph.

Page 2 – Examples of Random Walks

This part covers 3 sessions. 2 are on some of the most oftenly used random walks and goes into details to describe (derive?) their key properties. The last session is a quick aside that allows the user himself to customize his own isotropic random walk object. As such, it will have a different layout from the first two sessions.

Session 1, 2 – Brownian Motion, Lévy Flight

A screenshot of a social media post

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Fig. 3 Rough overview of Page 2, Section I, II

A screenshot of a social media post

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Fig. 4 Labeled overview of Page 2, Section I, II

The exact spacings between visualisers and controls can be decided at the developer’s discretion. As long as the relative position of each element is preserved it is okay.

Section 3 – Customised Walk

This page allows the user to draw their own pdf at the drawing interface (built using p5.js). Once the user finishes drawing, he can push the drawn pdf from the interface to the pdf visualizer (built using Plotly.js) by clicking the push button. The refresh button at the bottom of the interface allows the user to reset to drawing interface to its default value (as the drawing interface will become locked and unaccessible after the push button is clicked. The only way to unlock it is by refreshing it). All other functionalities remain the same.

A screenshot of a cell phone

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Fig. 5 Rough Overview of Page 2, Section III

A screenshot of a cell phone

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Fig. 6 Labeled Overview of Page 2, Section III

Again the spacing between each element does not matter as long as the relative position is preserved and the spacings are aesthetically pleasing.