

Folder with documents:

<https://drive.google.com/drive/folders/1wdxLcb7nTLYl1byycXIE9tNm3G5jNaPG>

- Proof similarity in proof theory
  - Document: Rectangle-tilings proofs. File can be found in the folder
    - A mathematical problem, a list of very different proofs of the problem and a discussion about whether or not they are similar from the perspective of how they generalize.
  - <https://mathoverflow.net/questions/3776/when-are-two-proofs-of-the-same-theorem-really-different-proofs>
  - <https://gowers.wordpress.com/2007/10/04/when-are-two-proofs-essentially-the-same/>
  - <https://gowers.wordpress.com/2010/03/28/when-is-proof-by-contradiction-necessary/>
- Computational functionalism in philosophy
  - <https://plato.stanford.edu/entries/computational-mind/>
    - Focuses on theory of mind. Mentions triviality results.
  - Borderline Cases of Consciousness.
    - Good paper on triviality. File can be found in the folder.
- Computational complexity theory
- Misc
  - K-L Divergence:  
[https://en.wikipedia.org/wiki/Kullback%E2%80%93Leibler\\_divergence](https://en.wikipedia.org/wiki/Kullback%E2%80%93Leibler_divergence)
  - Bisimulation: <https://en.wikipedia.org/wiki/Bisimulation>
  - <https://www.lesswrong.com/posts/mZy6AMgCw9CPjNCoK/computational-model-causal-diagrams-with-symmetry>
    - Maybe a more natural model of computation for talking about algorithmic similarity
  - <http://lo-tho.blogspot.com/2016/04/when-does-one-program-embed-another.html>
  - Galois Theory of Computation.
    - File can be found in the folder
- Problems with multiple algorithms solving them different ways
  - Primality tests: [https://en.wikipedia.org/wiki/Primality\\_test](https://en.wikipedia.org/wiki/Primality_test)
    - Especially interesting since there seems to be a big difference in how sophisticated mathematics each method relies on.