progress_report

February 18, 2021

[1]:
```
from IPython.display import Image
```

0.1 The Plan

0.1.1 Phase 1

(21.12.2020 - 21.02.2021)

1. Explore existing literature on hyperbolic deep learning on graphs (HGCN, HGNN papers)
2. Understand the basic concepts of Diffential Geometry
3. Understand the code structure of existing solutions
4. Implement the hyperbolic graph convolution layer in PyTorch Geometric

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5. Implement Hyperbolic Deep Graph Matching Consensus (and make it work)
6. Test the performance on the DBP15k dataset

0.1.2 Phase 2

(21.02.2021 - ???)

1. Research existing datasets for graph matching and find out suitable geometry for each
2. Implement Spherical Deep Graph Matching Consensus (boils down to implementing the Spherical manifold)
3. Test the performance of the three versions of DGMC (Eucl., Hyp., Sph.) on these datasets
4. ?????

0.2 The Diary