First，想一个argument把东西串起来，把文章再过一过，想一下，包括不同工作之间的link

Notation: 先过一遍所有文章，搞整齐

写introduction

写math background

把东西粘贴进去，搞格式

The role of dynamical systems (and how to use them by unrolling) in deep learning

1. GNN: graph dynamics: converge by unrolling. explicit unrolling in latent space
2. Connect human attention trace-caption: Similarly, the unrolling happen in the decoding process (RNN) and the two dynamics for trace and caption generation are coupled together.
3. Physarum dynamics: explicit unrolling in latent space
4. Newton-LP: explicit unrolling, implicit unrolling
5. CCA: the dynamics happens not in the network forward pass, but between iterations
6. SDE: unrolling of dynamics captured by dynamics generator

Yunyang’s dissertation’s intro:

deep learning

all kinds of developments

however, cost too much

several detailed examples of resource constraint optimization

one section seamlessly link different pieces

contributions, concaving the abstracts with some links

similarly, my structure could be:

deep learning, dynamical systems

developments of combining two, remain under explored, and utilizing is hard

several detailed examples of combining these two

one section fusing my topics (focusing on describing the settings/problems instead of introducing my proposals)

contributions, concaving the abstracts with some links