This Thesis:
an Overview

LABELS

$\{\mathbf{x}_i, y_i\}$

Part I:
OT with
Structured Costs

AISTATS '18

STRUCTURE

S
N   VP
   V   NP
      D   N
John hit the ball.

5'ATGACGTGGGGA3'
3'TACTGCACCCCT5'
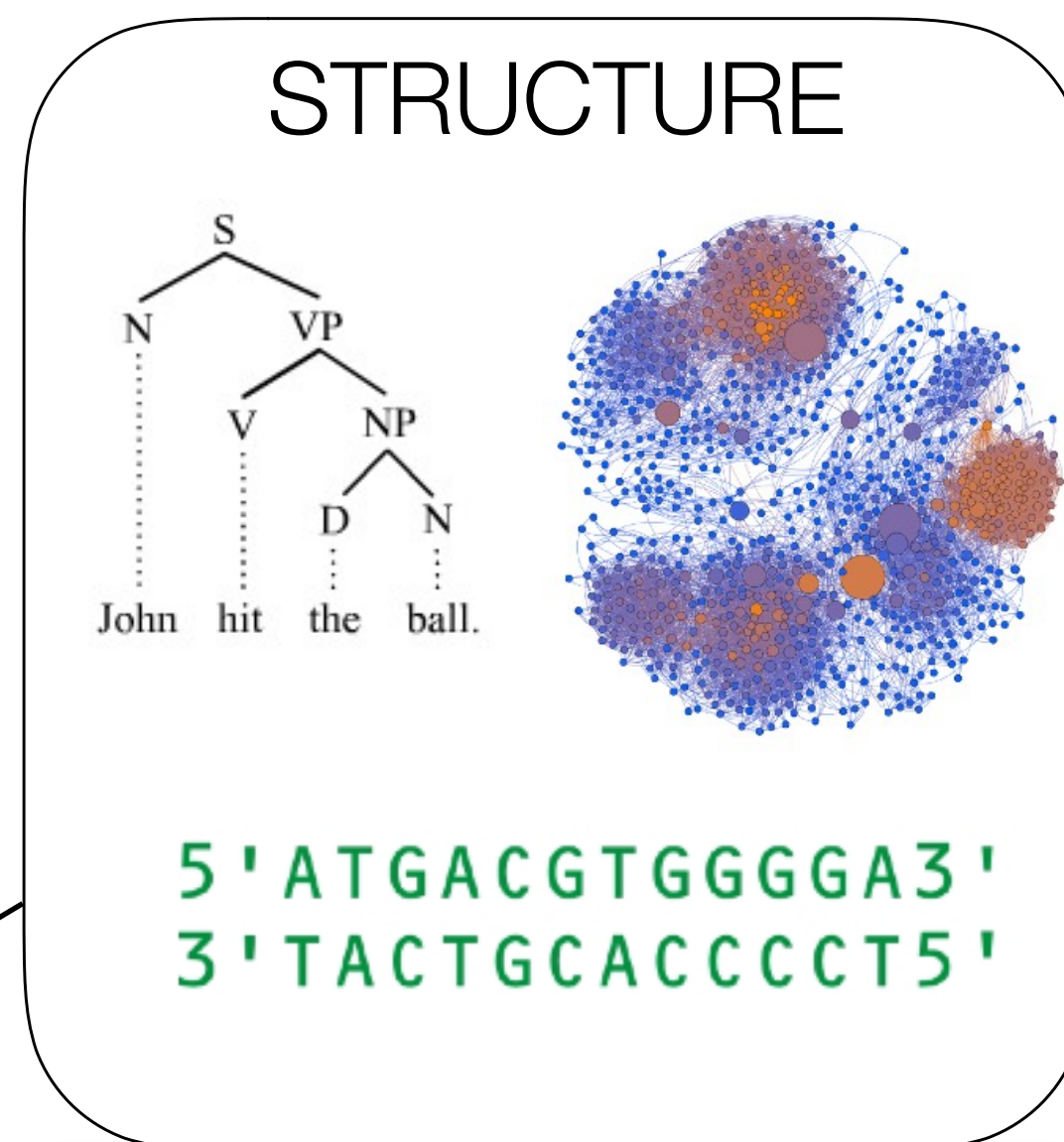
Part II:
OT with
Global Invariances

EMNLP '18 & AISTATS '19
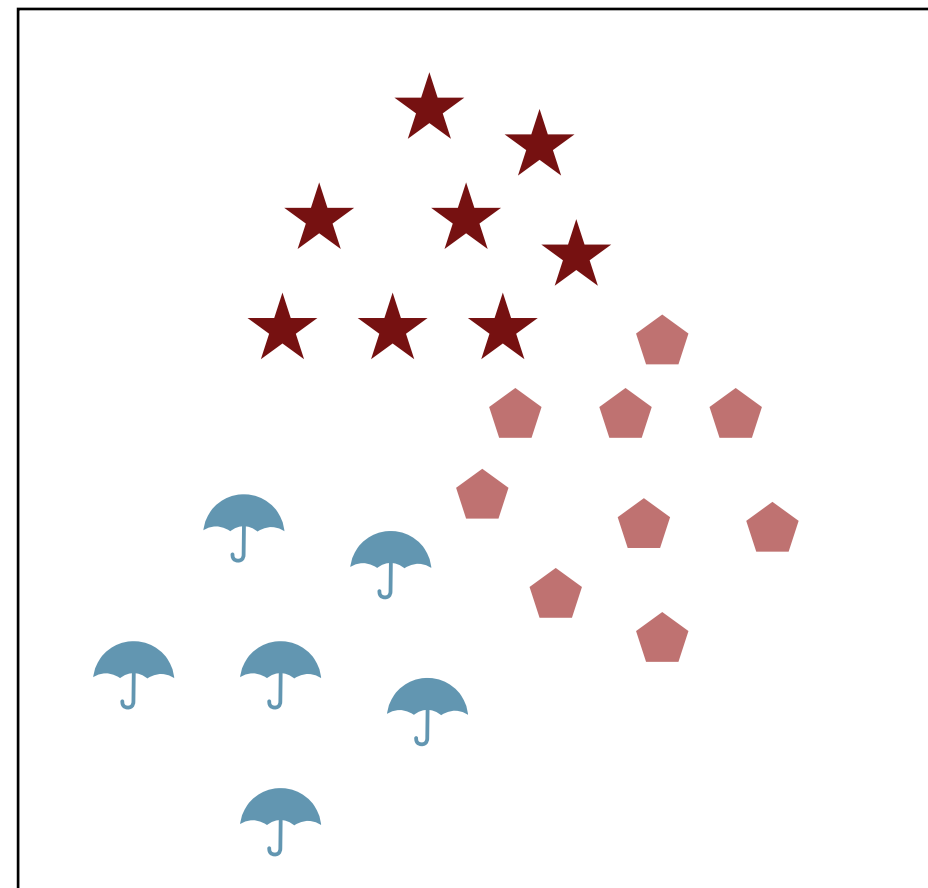
GEOMETRIC
INVARIANCES

5   5   5
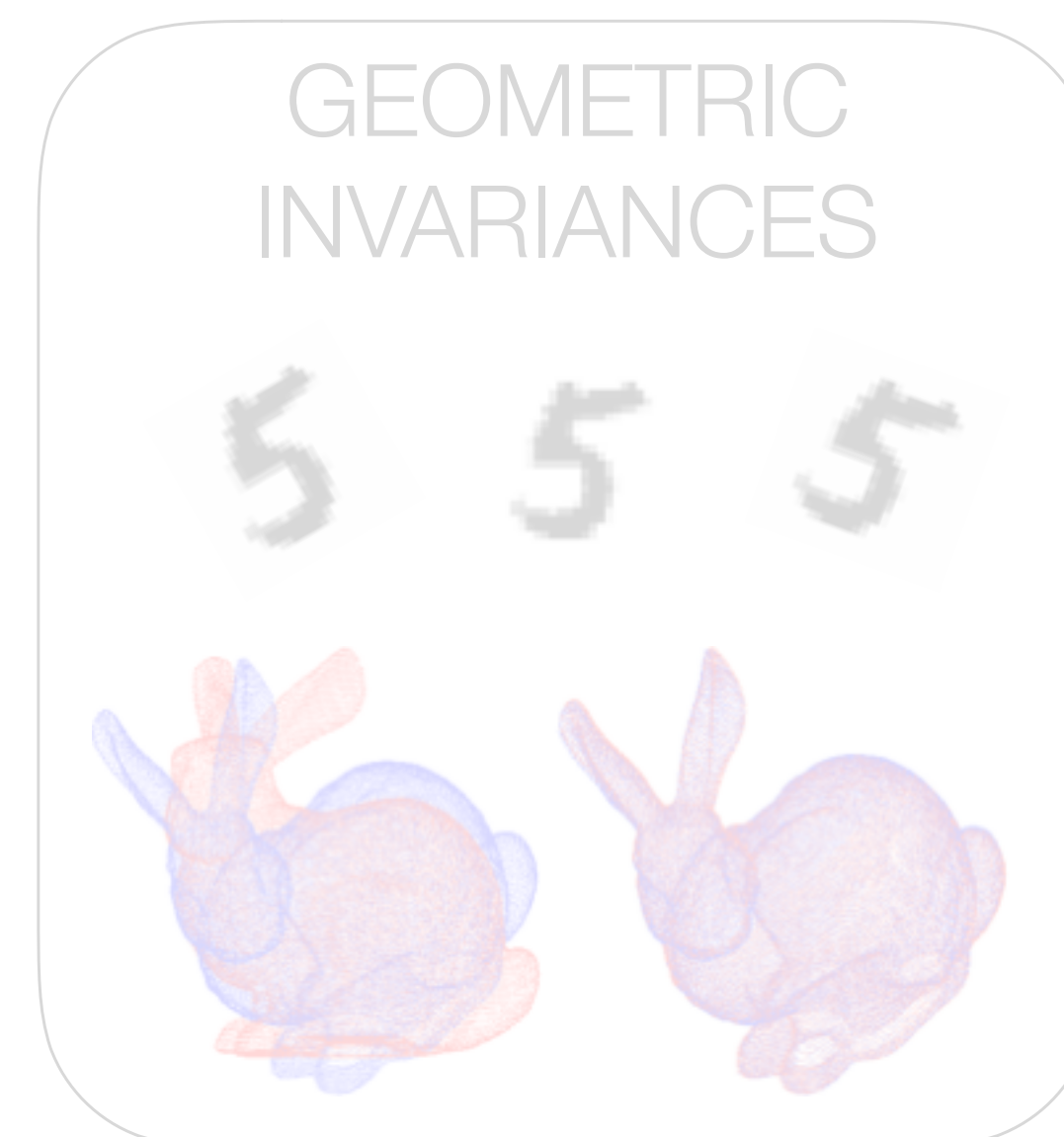
Part III:
OT over
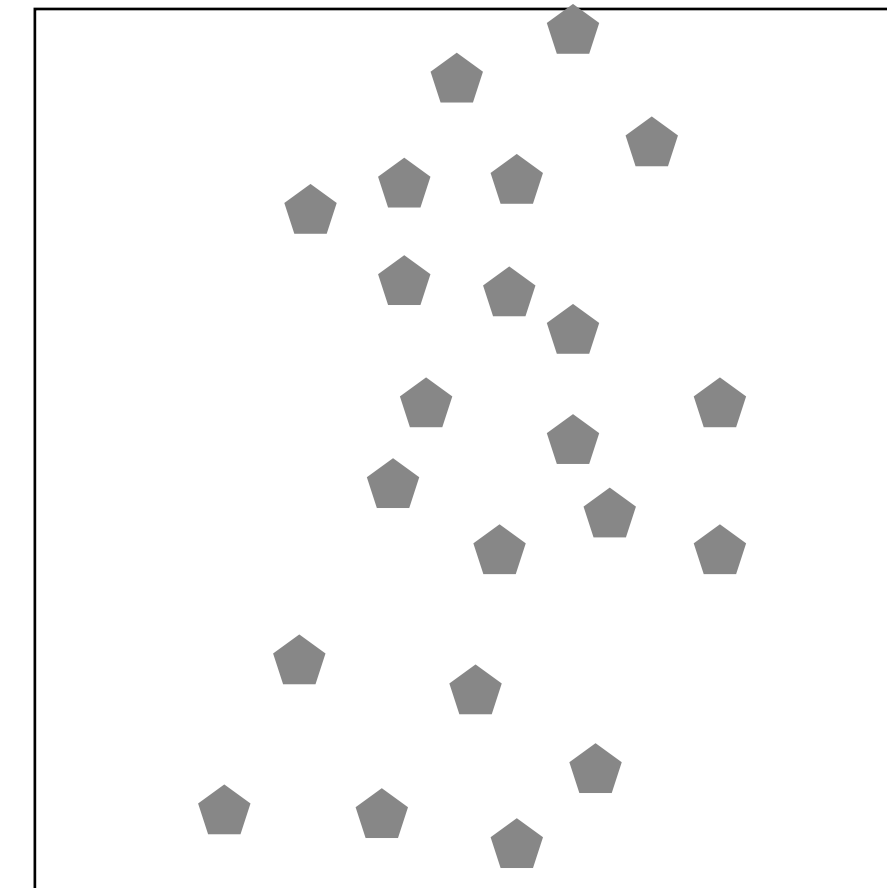Hyperbolic Spaces

In Submission

Structured Optimal Transport
Motivation

Setting | Domain Adaptation for Classification

Labeled Source Domain

Unlabeled Target Domain

Goal | Transfer information between source and target domain

Idea | Use correspondences between source and target samples to transfer labels

Want | Encourage points with the same label to be mapped together!