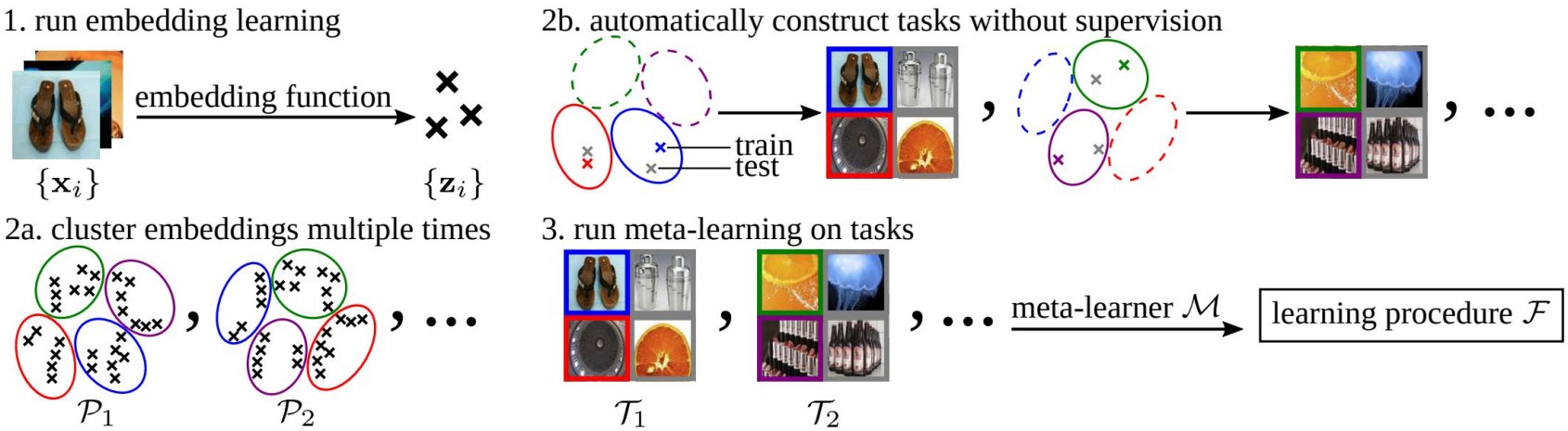
Unsupervised Learning via Meta-Learning

Kyle Hsu[1], Sergey Levine[2], Chelsea Finn[2]
[1]University of Toronto [2]UC Berkeley

Division of Engineering Science
UNIVERSITY OF TORONTO

BAIR
BERKELEY ARTIFICIAL INTELLIGENCE RESEARCH

- Unsupervised learning is commonly used as pre-training for downstream learning.
  - We improve upon this by incorporating knowledge about the downstream task type: image classification.
- **Unsupervised meta-learning** via CACTUs: meta-learning over tasks constructed from unlabeled data.



- Results: better than unsupervised learning, worse than supervised meta-learning