**Goal:** Achieve temporally consistent geolocalization on map by learning motion trajectory

**Contributions:**
- Recurrent neural network for modeling motion trajectory (distance + direction)
- Hypothesis generation and pruning for topologically consistent geolocalization

**Implication:** An affordable AI system to geolocalize position only through self-motion information

---

**Summary**

- Methodology
  - Learning Motion Trajectory using RNN
  - Topological Consistent Prediction using Hypothesis Generation and Pruning

**Experiments & Results**

- Synthetic Path Generation and Training
  - Topological Map: 40 nodes, 61 edges
  - Trajectory Length: 10 nodes
  - All Trajectories: 1753
  - All Classes: 81
  - Input Feature Space: 20
  - Training Trajectories: 17536
  - Training Output Classes: 61

- Real Trajectory Generation and Testing

- Consistent Localization Result