MERLIN: Multi-agent offline and transfer learning for occupant-centric operation of grid-interactive communities

Summary
- A framework for training, evaluation and deployment of DER control policies by an aggregator or similar operator in grid-interactive communities.
- Case-study with a real-world 17-building dataset from Fontana, California.

Highlights
- Reinforcement learning provides up to 60% performance improvement.
- Independent control tailors well to individual building characteristics.
- Transfer learning has better performance than rule-based control.