## Semantics Rich Libraries for Effective Exascale Computations

- Optimized scheduling for recursive domain decomposition
  - Applications: Computational mechanics, peridynamics
  - Publications: ICS 2013
- Domain-aware partitioning strategies
  - Applications: Recursive coupling applications
  - Publications: IJNME 2016 (submitted)
- Semantics-aware multi-accelerator offloading
  - Applications: Heterogeneous apps (e.g., Jacobi)
  - Publications: ICS 2013, ICS 2015
- Semantics-based optimizations for CnC
  - Applications: LULESH
  - Publications: WolfHPC 2015, LCPC 2015





