Parallelization for a Pure Absorber Residual Monte Carlo Transport Code

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Overview

Overview

- Particles track in straight lines
- Standard Monte Carlo (MC) transport (on "small" domains) is embarrassingly parallel
  - Each processor tracks and scores particles on its copy of the domain
  - Reduce tallies at end (fixed cost, independent of number of histories)
- Want to track over decomposed mesh
  - Residual MC requires too many tallies to copy efficiently

Goal

Make a simple emulator to look at cost of communicating at boundaries for domain decomposition compared to a domain copy

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