Scan
Workplan

Nils Kochendörfer, Christian Alles ,Stephan Proß

Heidelberg University

December 12, 2021

Overview - 1

- Naive Sequential Implementation (Core)
  - Inclusive/Exclusive Scan
  - Segmented Scan
- Parallel Baseline (Core)
  - OpenMP: Scan Directive
  - TBB: Parallel Scan Function

Overview - 2

- Algorithmic Optimisations
  - Up-Down Sweep (Core)
  - Tiling (Core)
  - Hybrid (Enhanced)
- Implementation-Specific Optimisations (Enhanced)
  - Cache Size Awareness
  - NUMA (?)

Workplan

- Project Setup
  - Folder Structure
  - Header Files (Interface definitions)
- Naive Sequential and Baseline Parallel Implementation
- Algorithmic Optimisations
- Implementation-Specific and Code Optimisations

Meanwhile:

- Benchmarks
- Documentation
- Interpretations

Workplan

- Project Setup
    - Folder Structure
    - Header Files (Interface definitions)
- Naive Sequential and Baseline Parallel Implementation
- Algorithmic Optimisations
- Implementation-Specific and Code Optimisations

Meanwhile:

- Benchmarks
- Documentation
- Interpretations

Presentation!