

BabelFlow: An Embedded Domain Specific Language for Parallel Analysis and Visualization

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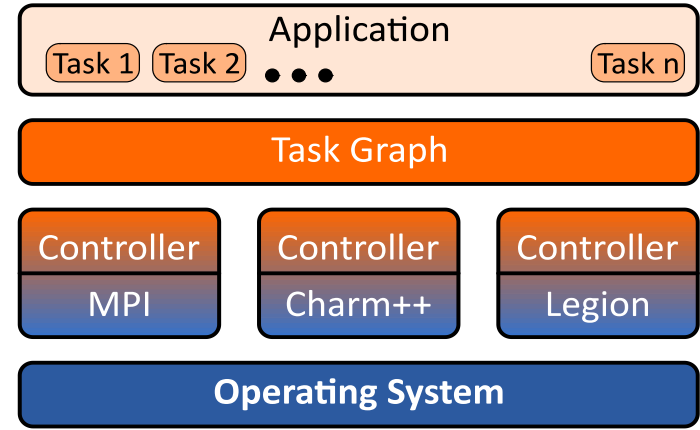
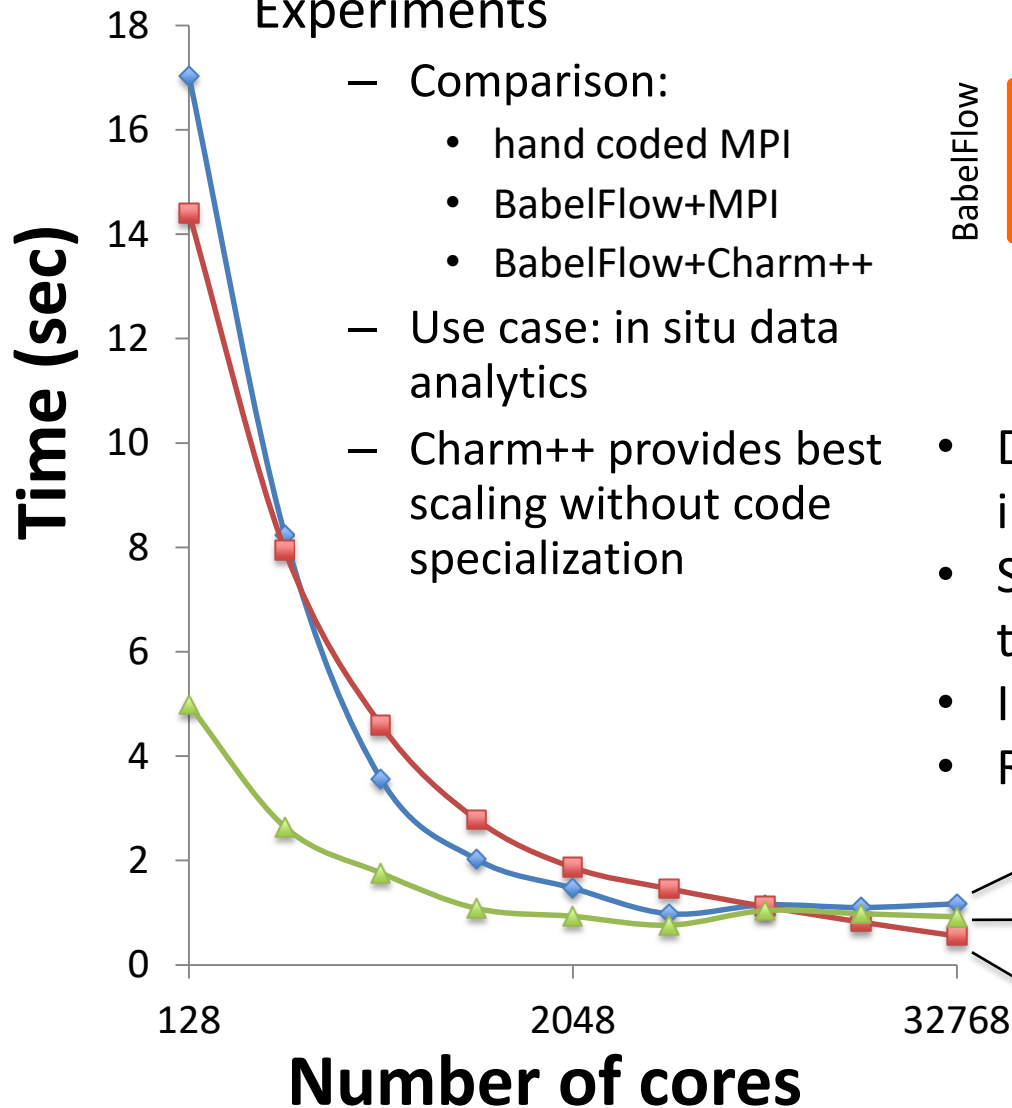
In collaboration with Steve Petruzza, Peer-Timo Bremer

Sourcecode: <https://github.com/sci-visus/BabelFlow.git>

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Experiments

- Comparison:
 - hand coded MPI
 - BabelFlow+MPI
 - BabelFlow+Charm++
- Use case: in situ data analytics
- Charm++ provides best scaling without code specialization



- Decouple algorithm definition from implementation
- Simple Dataflow graph represents the communication patterns
- Implicitly asynchronous
- Runtime agnostic

- Original MPI
- BabelFlow + MPI
- BabelFlow + Charm++

