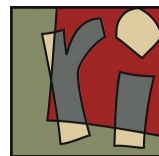


Global scheduling against waste Against global scheduling waste

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Motivation

Global scheduling against waste

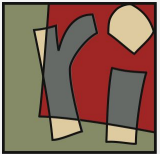
Improve the utilisation of computing resources

Tackle the challenges related to scalability, locality, and heterogeneity

Against global scheduling waste

Improve the ways we do our research in the domain

Reuse and adapt the knowledge, ease testing, reuse code



Scheduling library

Problem: Complex scheduling algorithms → Hard to test, to debug, to reproduce results, to reuse between [runtime] systems, to adapt

MOGSLib

Meta-programming-Oriented Global Scheduler Library

Extensible framework for modular schedulers

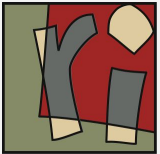
<https://github.com/ECLScheduling/MOGSLib>

Consumers (e.g. chares)

Manager (e.g. Charm)

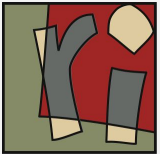
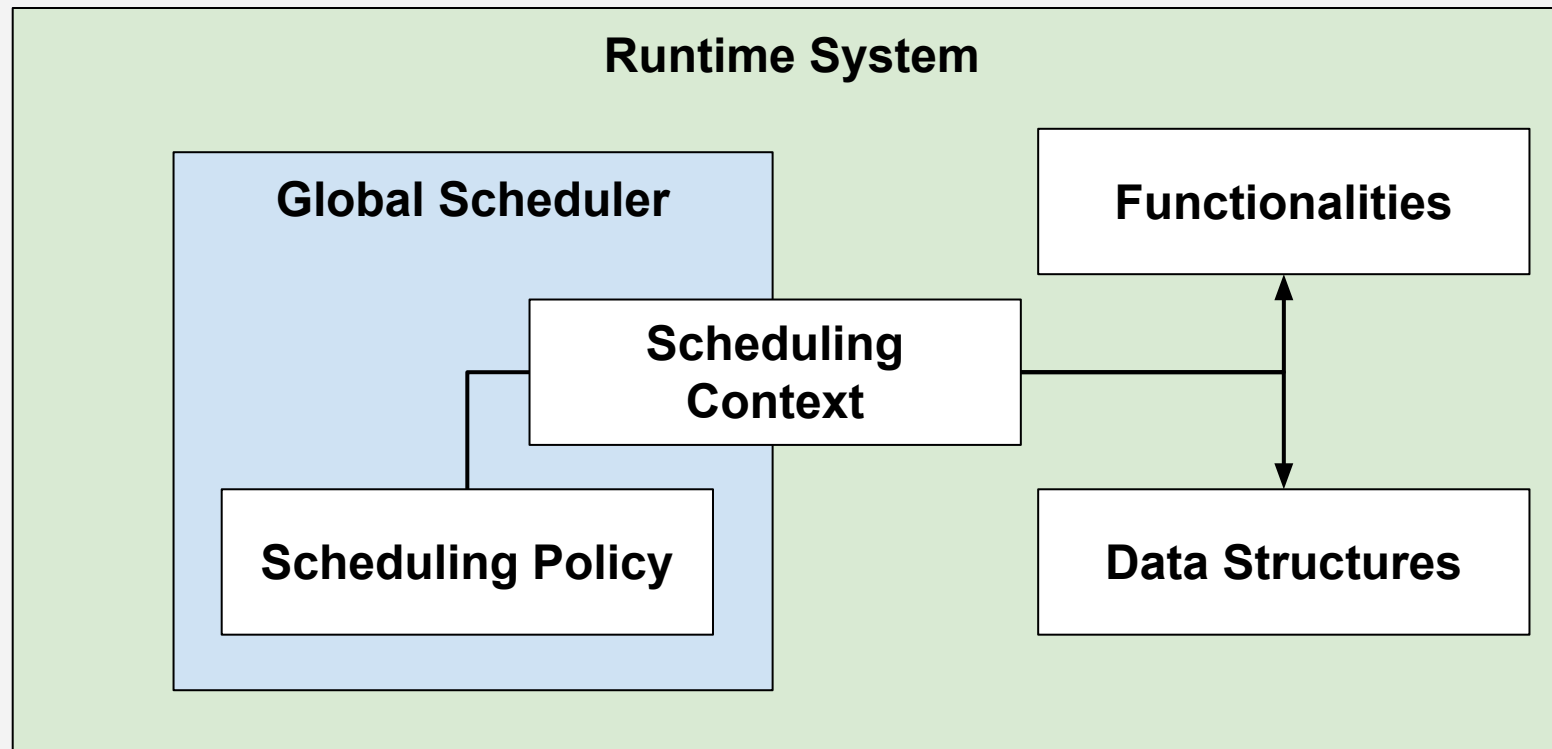
Resources

MOGS



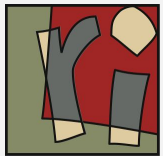
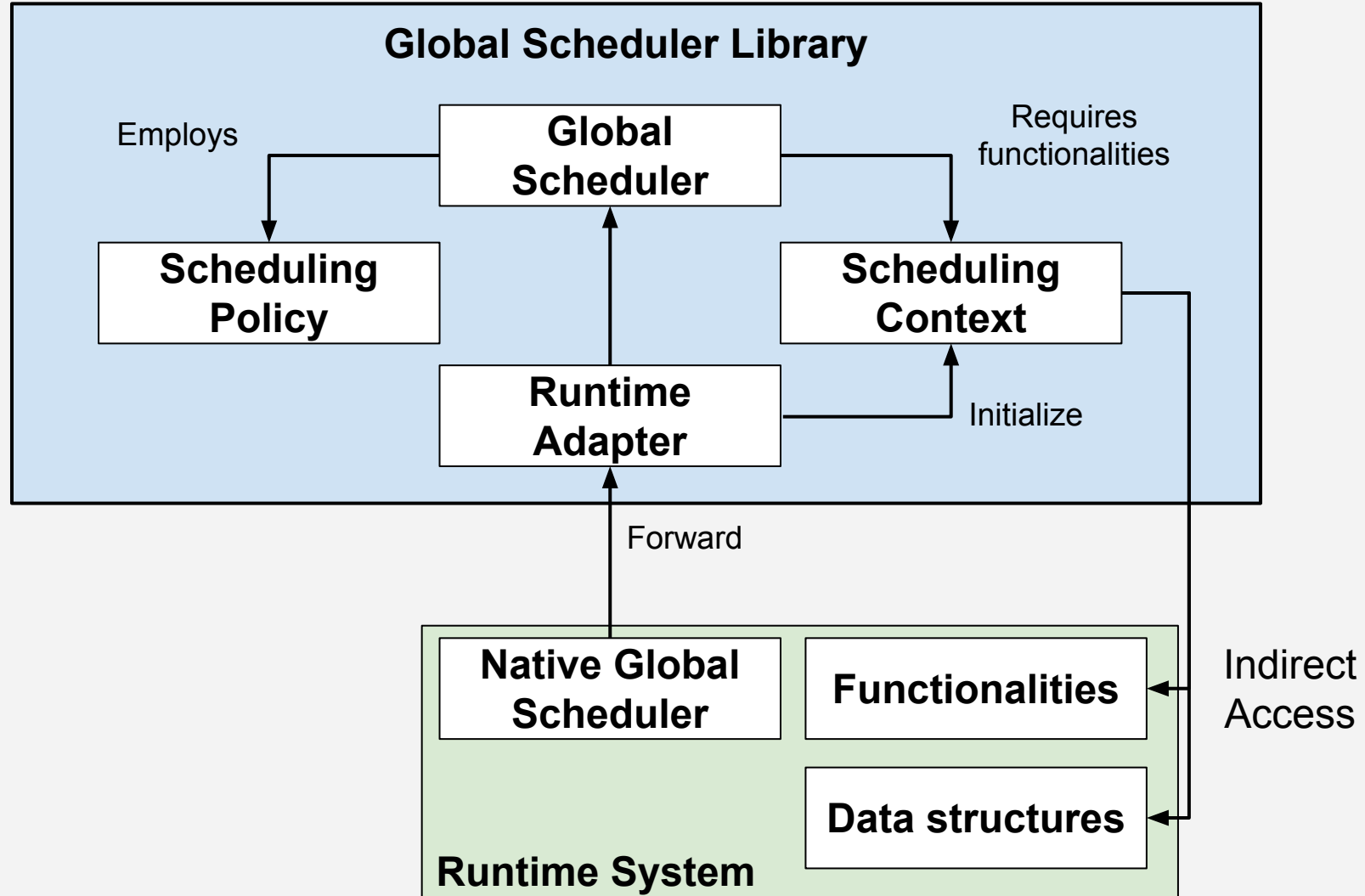
Scheduling library

Before MOGSLib



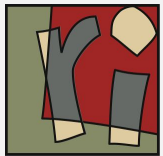
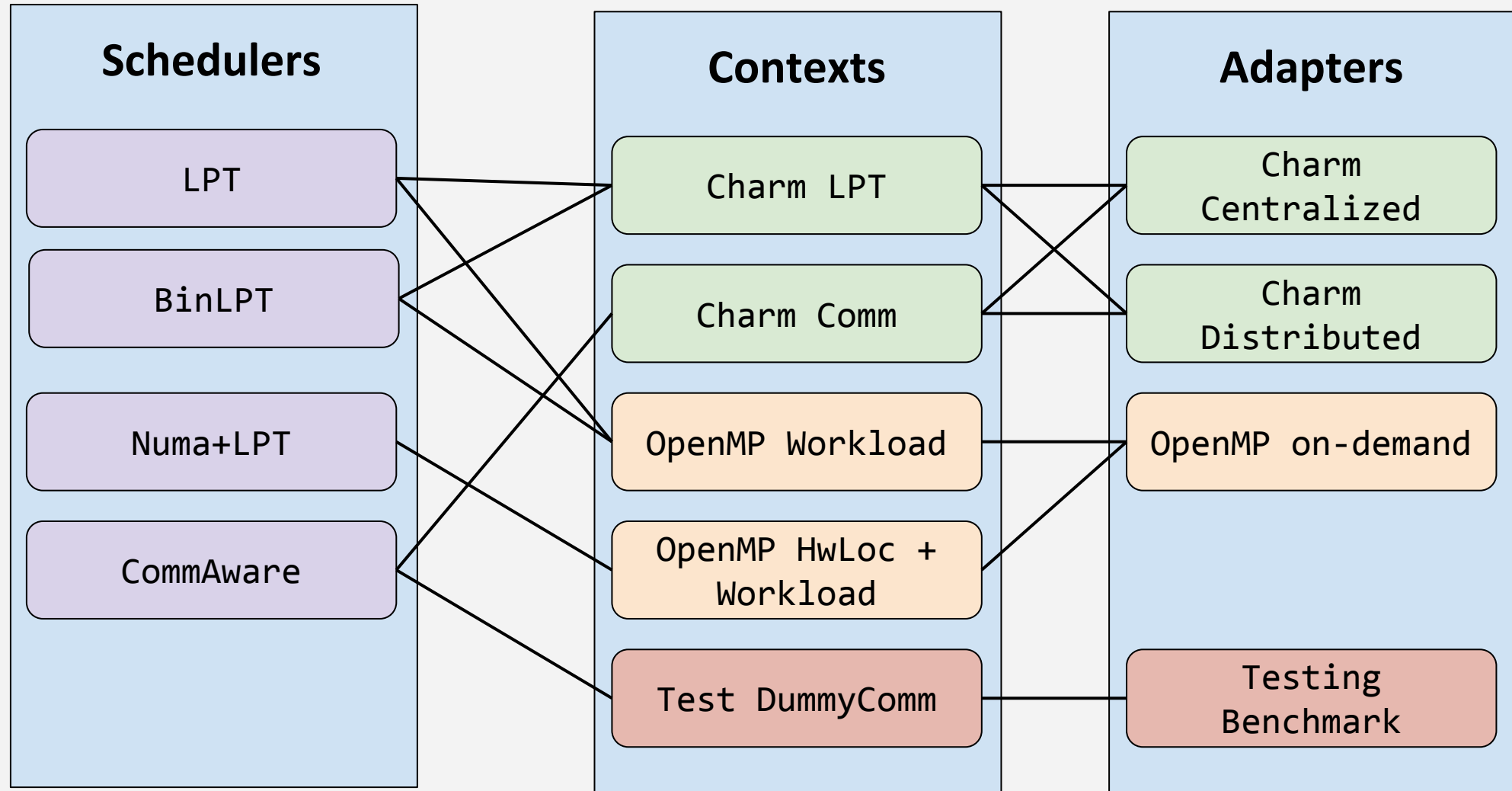
Scheduling library

After MOGSLib



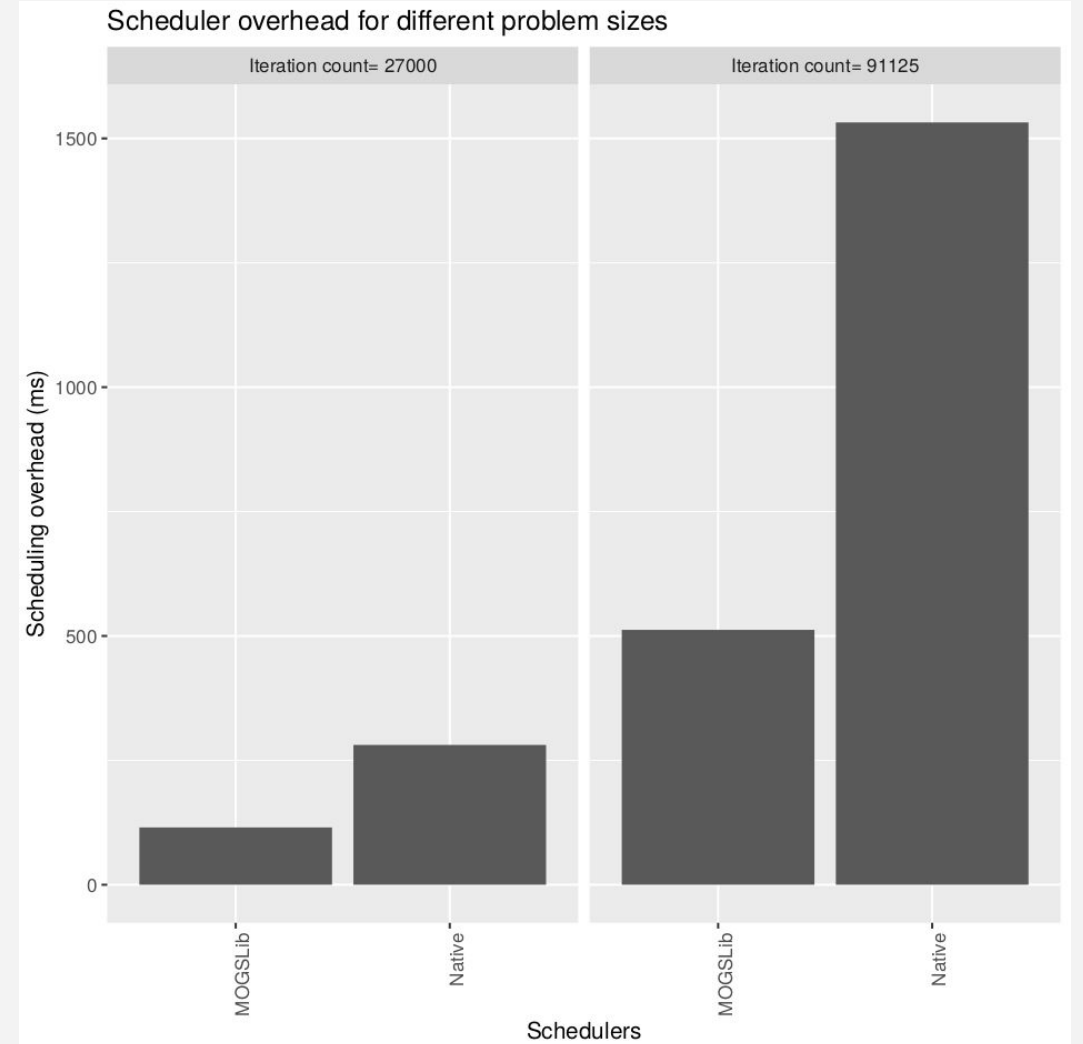
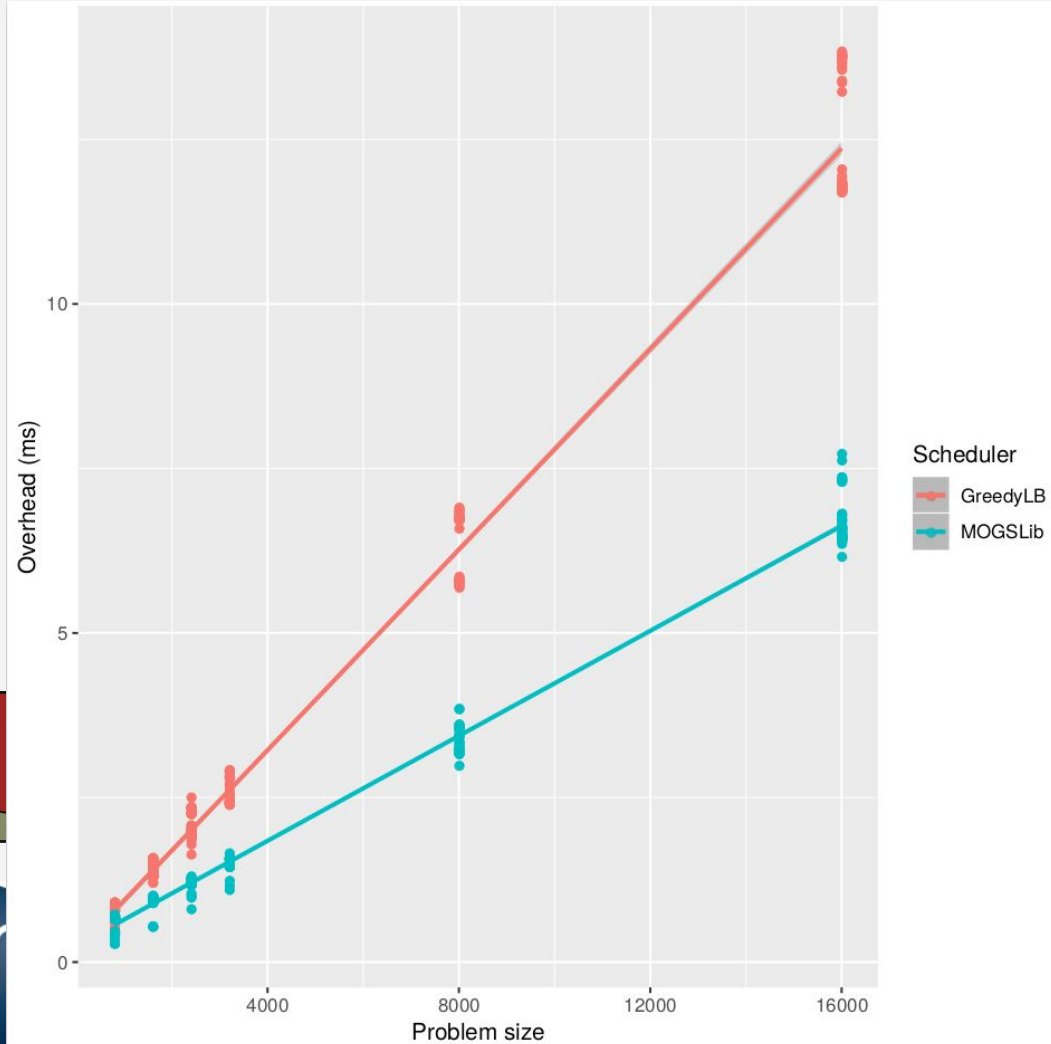
Scheduling library

Reuse with MOGSLib



Scheduling library

Performance results



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Thank you.

