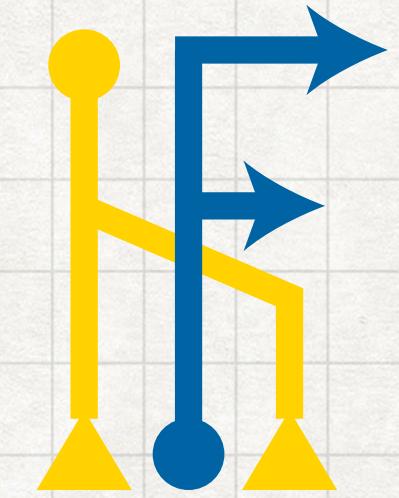


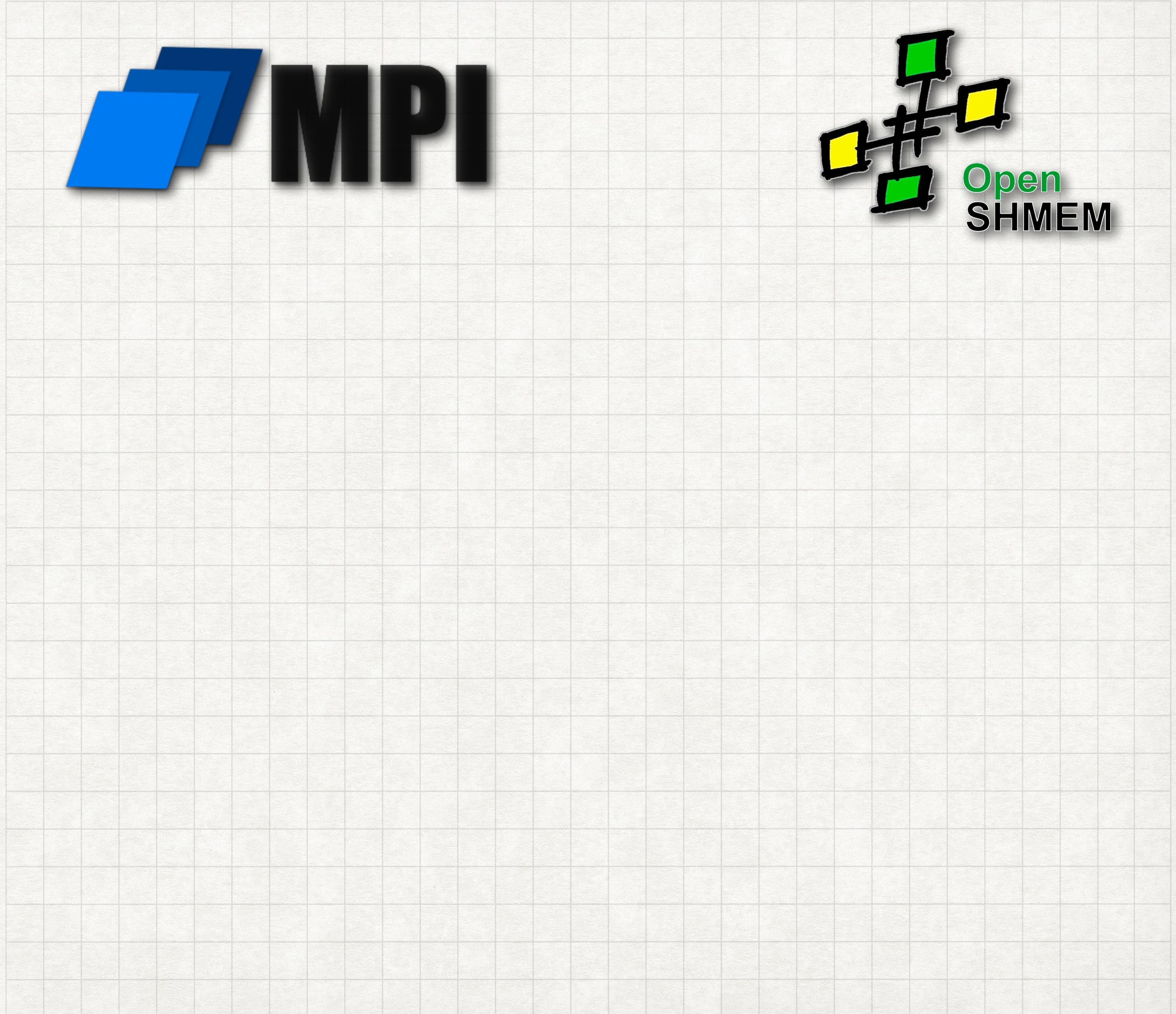
LEVERAGING SC TO LEARN HIGH-PERFORMANCE COMMUNICATION

Rohit Zambre

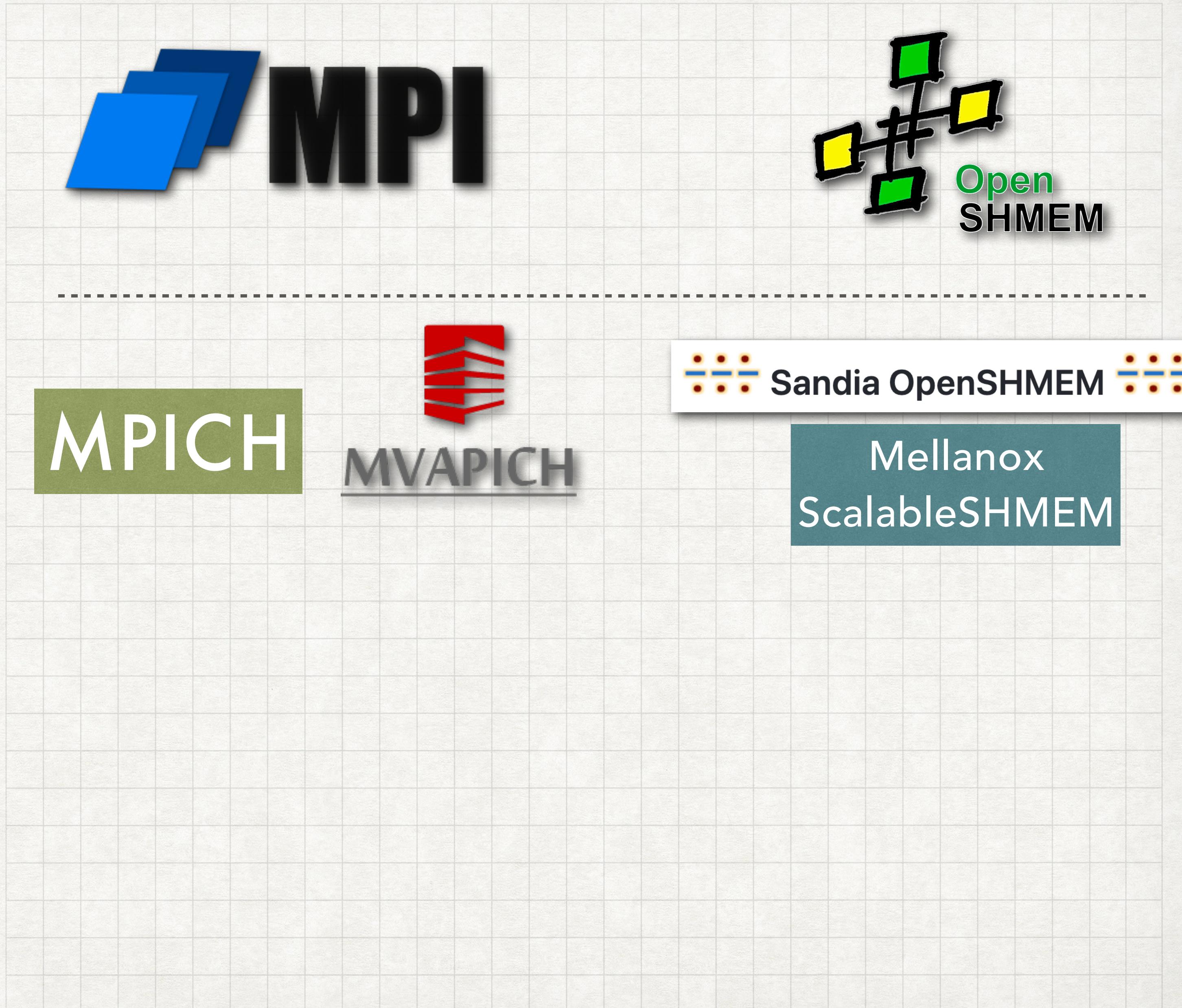
Ph.D. Candidate, University of California, Irvine



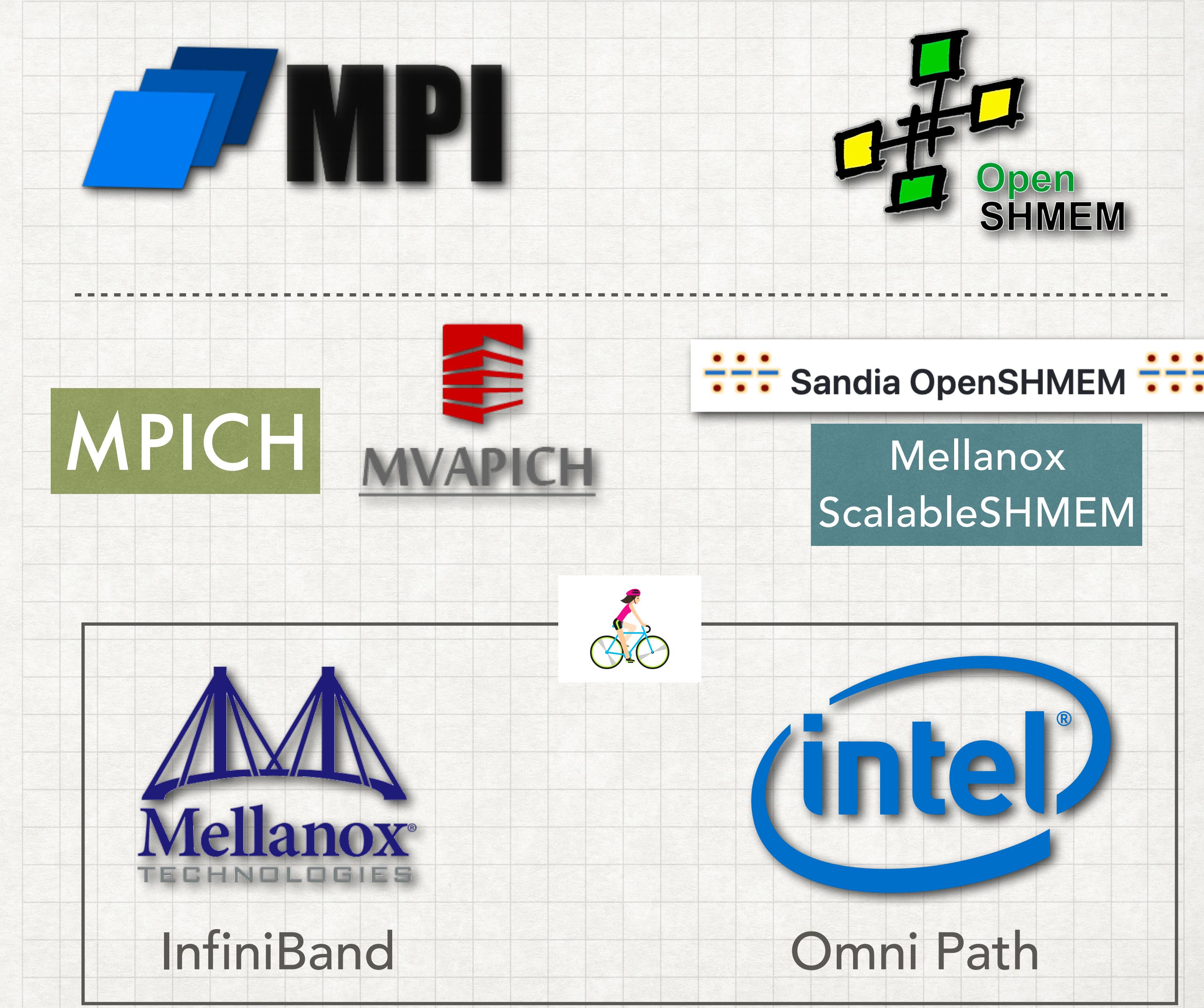
HIGH- PERFORMANCE COMMUNICATION



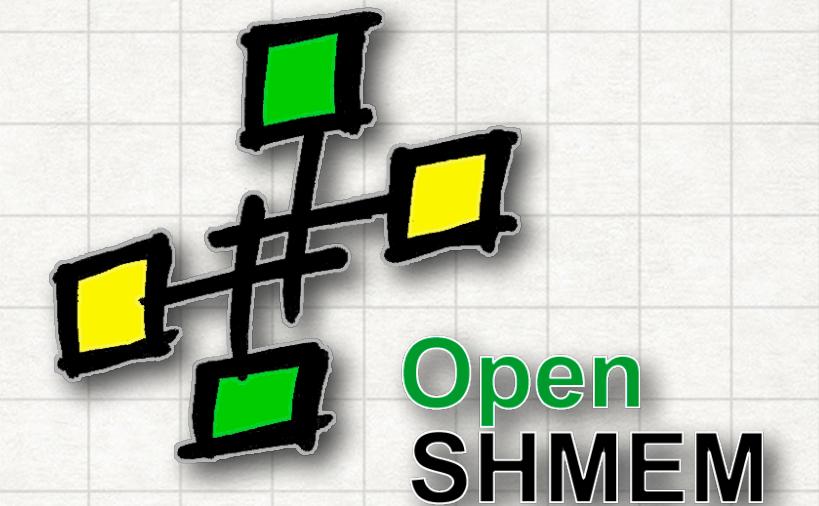
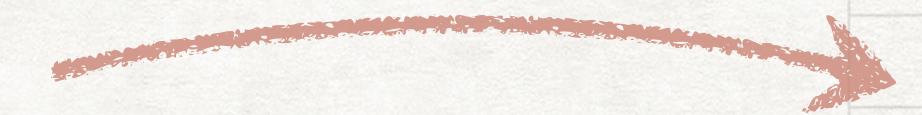
HIGH- PERFORMANCE COMMUNICATION



HIGH- PERFORMANCE COMMUNICATION

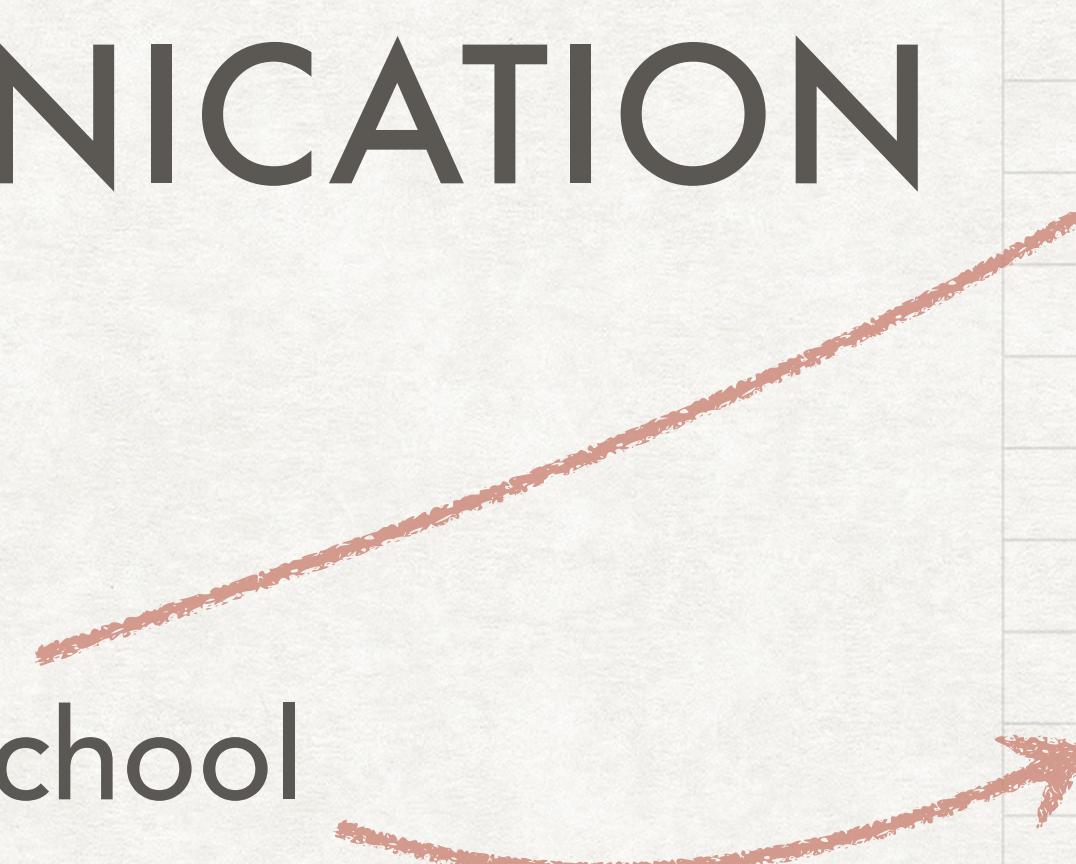


Taught in school



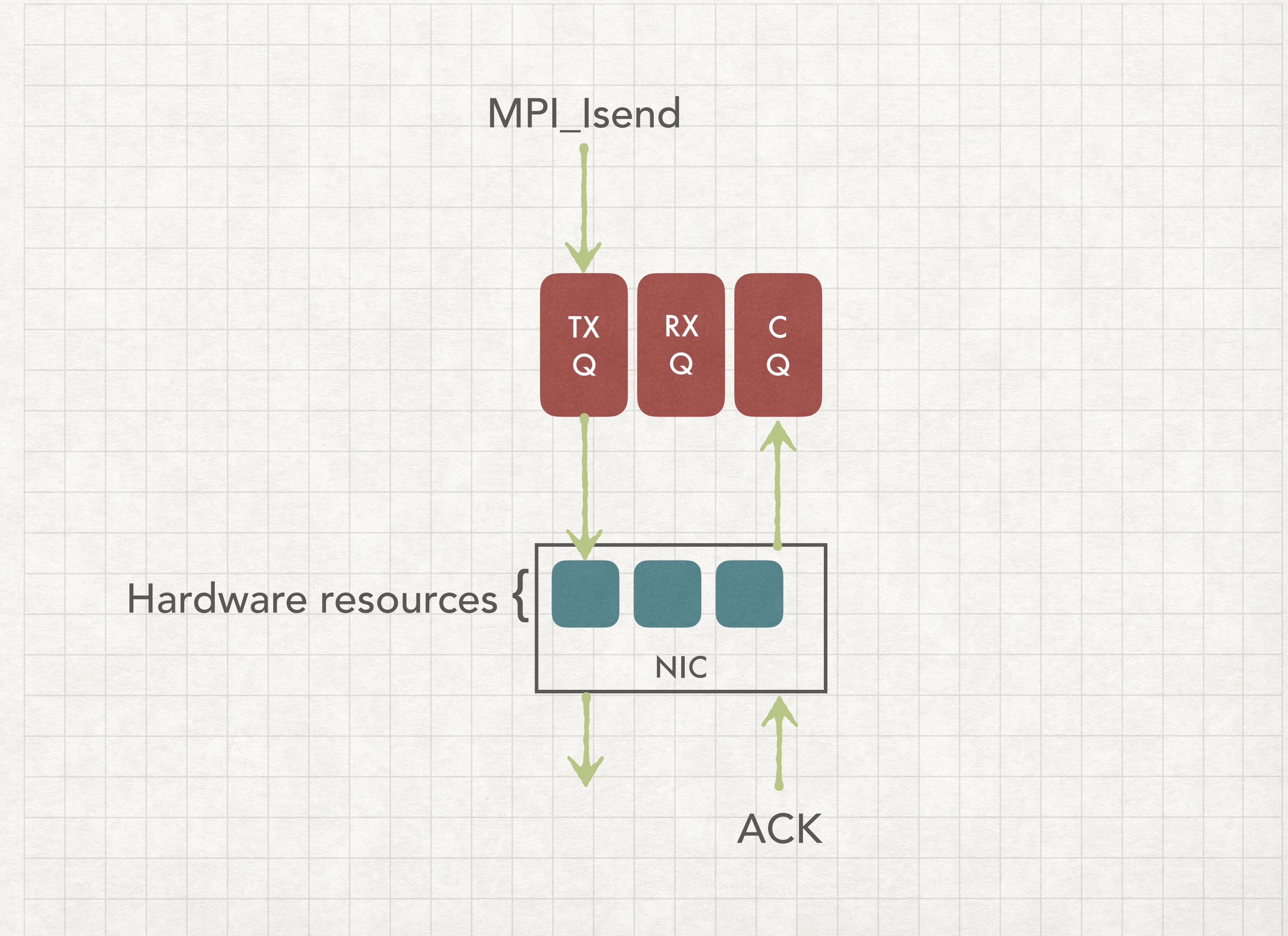
HIGH-PERFORMANCE COMMUNICATION

Not taught in school



LOW-LEVEL CONCEPTS COMMON BETWEEN INTERCONNECTS

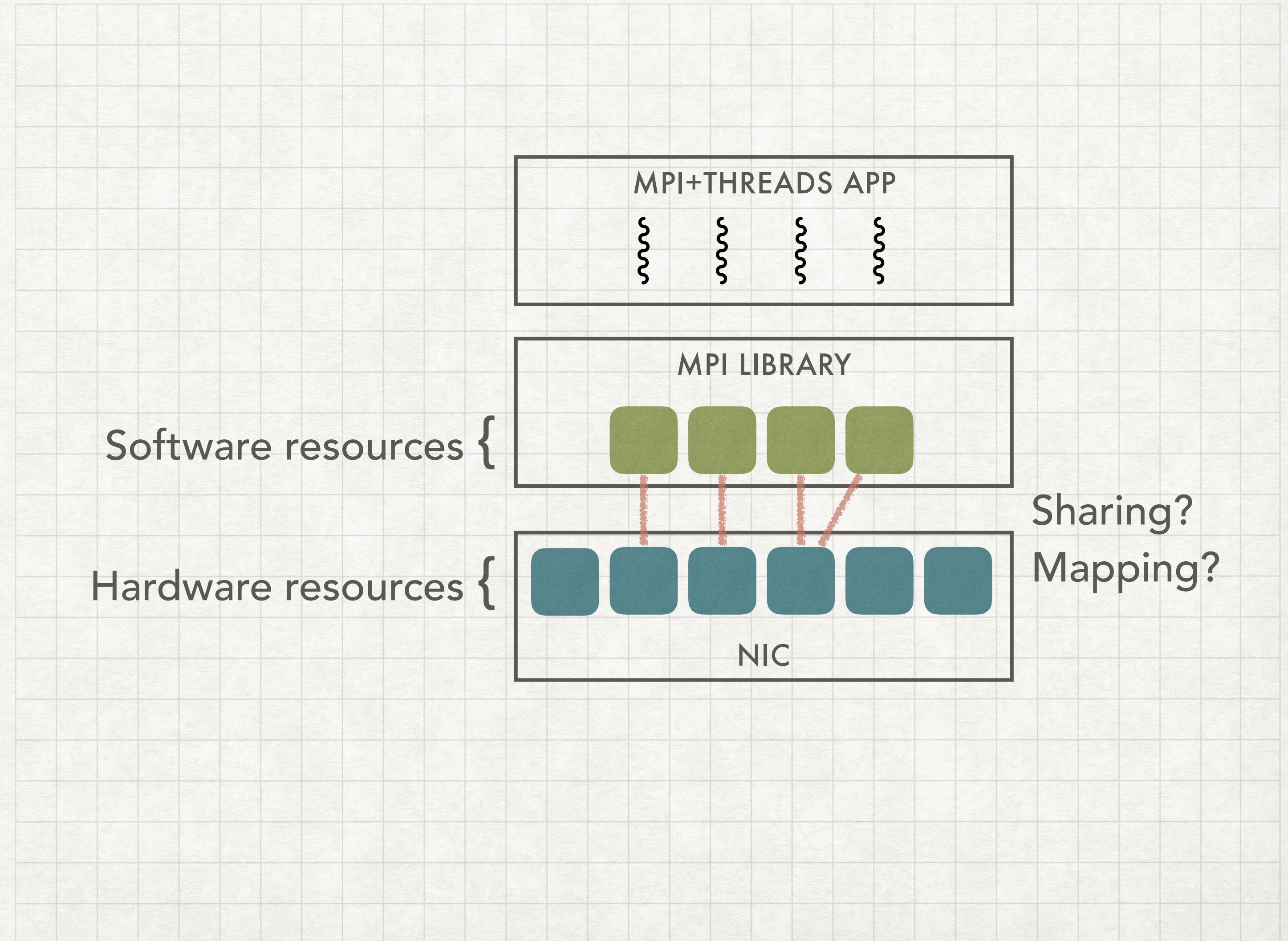
- Underlying mechanisms and concepts of all high-performance interconnects nearly similar.
- Common notions of Transmit queues, Receive queues, Completion queues, zero-copy semantics, programmed I/O, etc.



LOW-LEVEL CONCEPTS COMMON BETWEEN INTERCONNECTS

IMPORTANT FOR HIGHER-LEVEL RESEARCH

- Underlying mechanisms and concepts of all high-performance interconnects nearly similar.
- Common notions of Transmit queues, Receive queues, Completion queues, zero-copy semantics, programmed I/O, etc.
- Extensions to high-level communication libraries require knowledge of the lower level.



SC COMPLETES THE MISSING PIECES

TUTORIALS + BOFS + NETWORKING

- InfiniBand, Omni-Path, and High-Speed Ethernet for Dummies/Beginners @ SC'17, SC'18, SC'19.
- UCX, OFI, MPICH BoFs to learn about updates to the libraries' features.
- Experts on the exhibit floor to understand observed behavior.



InfiniBand, Omni-Path, and High-Speed Ethernet for Beginners

Presenters: [Dhabaleswar Panda](#), [Hari Subramoni](#), [Mohammadreza Bayatpour](#)

Event Type: Tutorial

Registration Categories:

TUT

Tags:

[Introductory](#) [Networks](#)



THANK YOU!

Questions?