



Award #: 1450429

## CSSI Element: SI2-SSI: Collaborative Proposal: Performance Application Programming Interface for Extreme-Scale Environments (PAPI-EX)

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- Arithmetic Intensity (AI) is a critical metric for assessing the performance potential of a code.
- Measuring AI requires measurements of FLOPS & traffic to DRAM.
- Traffic to DRAM involves multiple non-trivial uncore/northbridge/nest events.
- FLOPS involve multiple events for capturing operations of different vector length.
- PAPI-Ex team is actively working on new PAPI preset events for effortless computation of AI.
- Effort to understand the meaning of native events.
- Developed benchmarks to test various aspects of the hardware and still developing more.
- Working on automatic analyses for classifying events based on the benchmark output.