

# QPX in Lattice QCD

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## QPX in Lattice QCD codes

- We added a few QPX routines using XLC intrinsics in QLA
  - QLA is a linear algebra library in the USQCD SciDAC modules
  - For example:  $r[i] += m[i] * (*v[i])$  for  $i = 0 \dots n-1$

QPX	qspi	Mapping	mode	Gflops/node
			c32	11.7
		✓	c64	12.9
	✓		c32	13.8
✓			c32	13.5
✓		✓	c32	16.7
	✓	✓	c64	18.1
✓	✓		c32	17.6
✓	✓	✓	c32	26.7

- With all the improvement efforts, we obtain **2.3 times** speed up!