Intel® Core[] i5-6300HQ CPU @ 2.30GHz (Skylake) L1: 32KB, L2: 256KB, L3: 6MB Compiler: clang 12.0.0 Flag:-march=native -03 60% Theoretical Maximum Performance (no FMA) 4 Performance [FLOPS/cycle] L1 Cache L2 Cache L3 Cache - mul naive mul\_inplace mul\_inplace\_vec mul\_inplace\_vec\_2x\_unroll mul\_inplace\_vec\_3x\_unroll mul\_inplace\_vec\_4x\_unroll 1

 $2^{11}$ 

 $2^{12}$ 

2<sup>13</sup>

 $2^{14}$ 

 $2^{15}$ 

 $2^{16}$ 

 $2^{17}$ 

 $2^{10}$ 

Quad-double array size

2<sup>3</sup>

 $2^4$ 

25

26

27

28

29