Intel® Core[] i5-6300HQ CPU @ 2.30GHz (Skylake) L1: 32KB, L2: 256KB, L3: 6MB Compiler: clang 12.0.0 Flag:-march=native -O3 100% Theoretical Maximum Performance (no FMA) 8 7 Performance [FLOPS/cycle] L3 Cache L1 Cache L2 Cache - mul naive mul\_inplace mul\_inplace\_vec mul\_inplace\_vec\_2x\_unroll mul\_inplace\_vec\_3x\_unroll mul\_inplace\_vec\_4x\_unroll 2 1  $2^{11}$  $2^{10}$ 2<sup>3</sup>  $2^4$ 2<sup>5</sup> 26 27 28 2<sup>9</sup> 2<sup>12</sup> 2<sup>13</sup>  $2^{14}$  $2^{15}$  $2^{16}$  $2^{17}$ Quad-double array size