

### EX.2.1.5, Sauer3

Use the approximate operation count  $2n^3/3$  for Gaussian elimination to estimate how much longer it takes to solve  $n$  equations in  $n$  unknowns if  $n$  is tripled.

### EX.2.1.5, Sauer3, solution, Langou

If  $n$  increases to  $3n$ , the approximate operation count changed from  $2n^3/3$  to  $2(3n)^3/3 = 54n^3/3$ , which will take 27 times as long.