

# Scaling Cellular Automata beyond 100,000 cores: *Fortran coarrays, MPI, OpenMP, do concurrent*

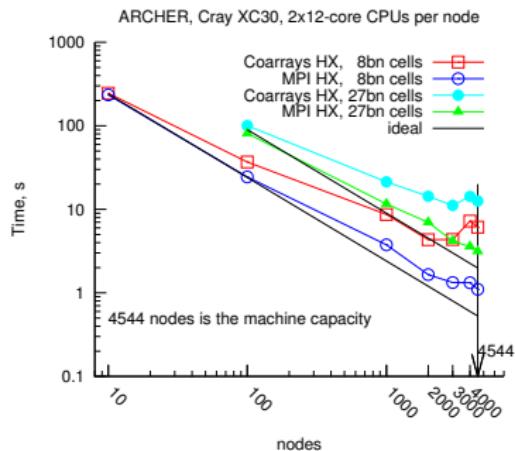
► [cgpack.sf.net](http://cgpack.sf.net)

Anton Shterenlikht

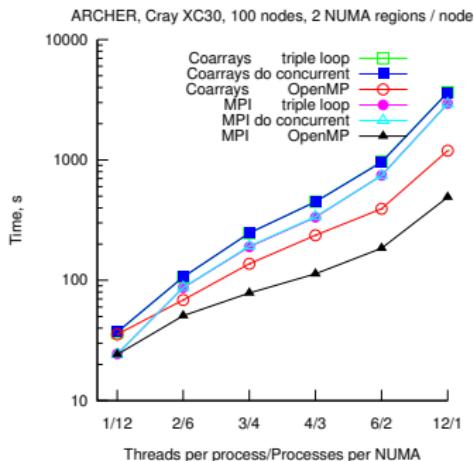
Mech Eng Dept, University of Bristol, Bristol BS8 1TR, UK  
mexas@bristol.ac.uk



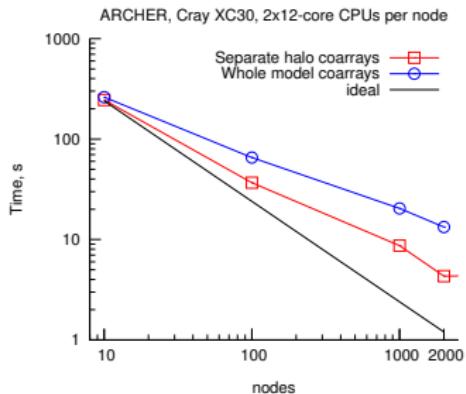
EASC 2018, The Exascale Applications and Software  
Conference, 17-19-APR-2018, Edinburgh



MPI beats coarrays - optimisation?



Any amount of threading is bad - ideal load balance?



Separate halo coarrays are best - why?

