

A Framework for Application Performance Modeling and Prediction

Title: [A Framework for Application Performance Modeling and Prediction](#)

Authors: A.Snavely, L.Carrington, N.Wolter, J.Labarta, R.Badia, A.Purkayastha

Abstract: Cycle-accurate simulation is far too slow for modeling the expected performance of full parallel applications on large HPC systems. And just running an application on a system and observing wallclock time tells you nothing about why the application performs as it does (and is anyway impossible on yet-to-be-built systems). Here we present a framework for performance modeling and prediction that is faster than cycle-accurate simulation, more informative than simple benchmarking, and is shown useful for performance investigations in several dimensions.

Reference: @inproceedings{snavely02frame, Author = {A.Snavely, L.Carrington, N.Wolter, J.Labarta, R.Badia, A.Purkayastha}, Booktitle = {Supercomputing}, Title = {A Framework for Application Performance Modeling and Prediction}, Year = {2002}}