CSCS
Centro Svizzero di Calcolo Scientifico
Swiss National Supercomputing Centre

ETH zürich

U. V. Catalyurek
Editor-in-Chief, Parallel Computing

Lugano,   15 / dicember 2018

VSI: SC18 Extended version of a Supercomputing 18 SciVis Showcase paper

Dear Editor of the Parallel Computing Journal

Upon invitation by Kenneth Moreland and Thomas Ertl, Supercomputing 18 Scientific Visualization Showcase Chairs to submit an extended version of our paper, we are pleased to provide our updated paper.

The first author Jean M. Favre, is the lead for the analysis, tuning and deployment of the Scientific Visualization libraries described in this paper. All the performance benchmarking were re-done after the Supercomputing Conference which took place in November 2018. In fact, a new version of the ParaView software was deployed, because it enabled higher performance, thanks to: a) an update of the Intel OSPRay library enabling zero-copy interface; and b) a highly tuned NVIDIA IndeX library tested in concert with NVIDIA, delivered to us on Dicember 7, 2018 and validated for our Supercomputer infrastructure. Thus, all performance numbers had to be validated again. In this extended version of the paper, both authors contributed to expanding the descriptions of the three rendering libraries evaluated. A new section was added to better separate GPU and CPU rendering.GPU renderings were expanded thanks to the new NVIDIA library. The second author Alexander Blass is responsible for the validation of the numerical simulation and the visualization techniques used to analyze the data. Both authors contributed more or less equally to the writing of the paper.

We are looking forward to working with the Review Committee of the Journal.

Best regards.

CSCS
Centro Svizzero di Calcolo Scientifico
Swiss National Supercomputing Centre

Dr. Jean M. Favre and Dr. Alexander Blass