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Keynote

Challenges of Data Analysis and Visualization at Exascale

François Mazen

Abstract

With the advent of exascale supercomputers, analyzing the results of numerical simulations has brought new visualization challenges, whether in terms of data size, hybrid hardware architectures, ray tracing rendering libraries, or progressive analysis. This presentation will take stock of these new scientific visualization challenges in the exascale era where GPU computing becomes the state of the art. We will analyse the current possible responses to these challenges (Viskores, ANARI, WebGPU, in situ GPU memory resident workflows...), and Kitware's vision in this field.