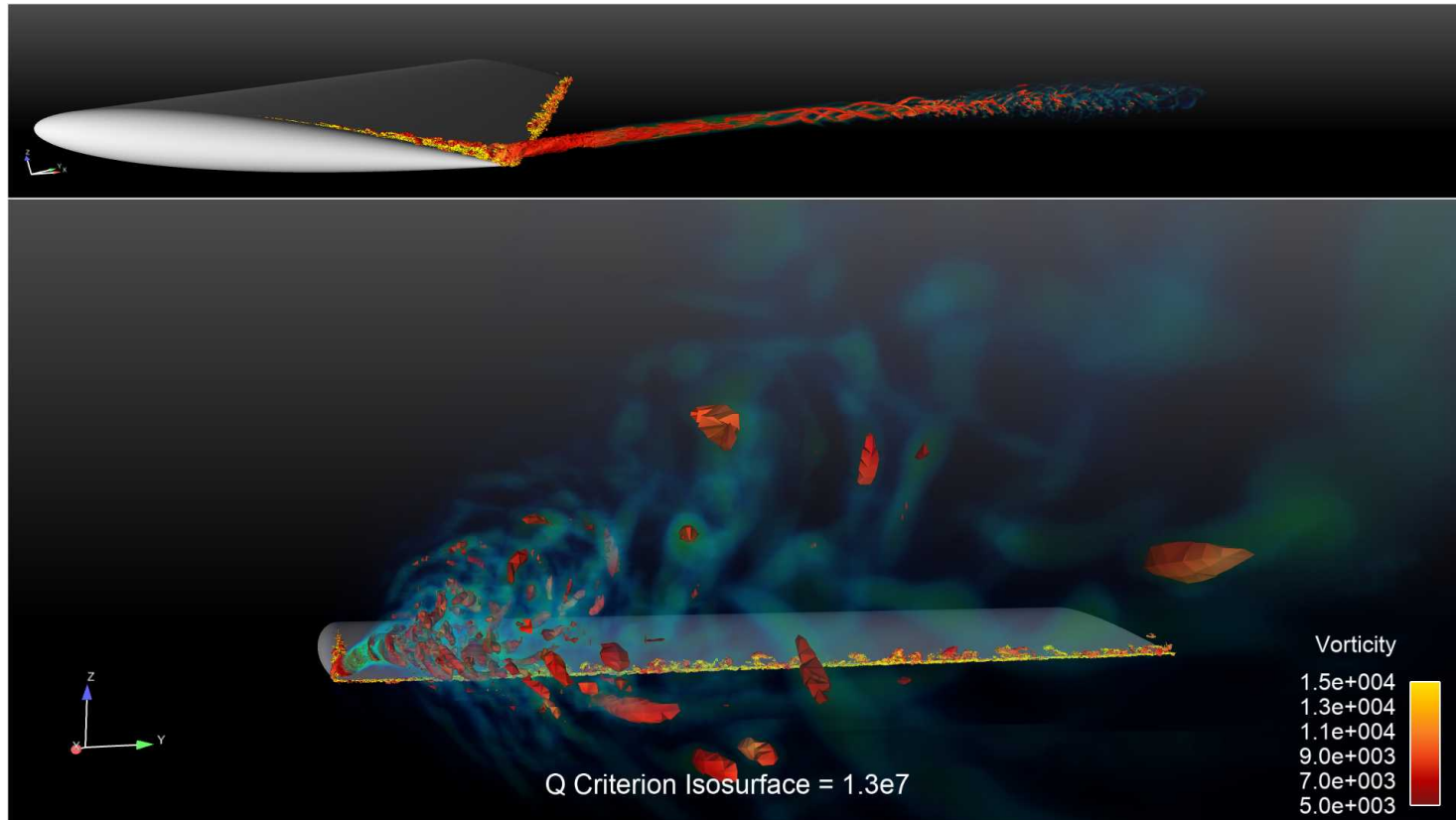


Using the open source CFD code Nalu to simulate complex geometries relevant to wind energy simulations

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SAND2017-*nnnn*

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At the heart of the ExaWind project is the open-source computational-fluid-dynamics (CFD) code Nalu, which solves the low-Mach-number Navier-Stokes equations using an unstructured-grid discretization. Nalu leverages the open-source Trilinos solver library (including the Kokkos performance portability layer) and the Sierra Toolkit (STK) for highly scalable parallelization and I/O.

Flow Visualization of McAlister Wing Tip Vortex & Turbulence

64M Finite Element Unstructured Mesh
Simulation on Sandia National Labs' Ghost
Exascale Computing Project Milestone, June 2017

Investigators: Matt Barone, Stefan Domino, Marc Henry de Frahan, Stephan Thomas

Visualization: Warren Hunt

Flow Visualization of McAlister Wing Tip Vortex and Turbulence