Contribution ID: **68** Type: **Invited talk (plenary/keynote)**

Computational Fluid Dynamics in Renewable Energy and High-Speed Transport

Wednesday, 6 December 2017 11:00 (30 minutes)

HPC content

The parallel cluster at the CHPC is used to provide speed-up on three fronts in the Computational Fluid Dynamics simulations discussed. The first is for large models containing tens of millions of computational cells that take long to solve and require a large amount of memory. The second is for optimization of parameterized geometry where many runs of fairly large CFD models are required. The last type of problem that benefits from the massively parallel approach, is that of a transient simulation with a very small time step, requiring many time steps for a meaningful time series.

Primary author: Prof. CRAIG, Ken (Professor)

Co-authors: Ms BENEKE, Andrea (Graduate student); Mr DELPORT, Gerrie (Graduate student); Mr BREEDT, Hendri (Graduate student); Mr WOLMARANS, Josh (Graduate student)

Presenter: Prof. CRAIG, Ken (Professor)

Session Classification: Computational Mechanics

Track Classification: Computational Mechanics