VERIFI

**The Virtual Engine Research Institute
and Fuels Initiative
at Argonne National Laboratory**

Workshop for High-Performance Computing-Enabled Engine Simulations

Hosted by

The Virtual Engine Research Institute and Fuels Initiative (VERIFI)

"Hands-on" Session Agenda

VERIFI researchers will guide the participants on how to login to an IBM Blue Gene/Q machine and set-up engine simulations. The participants will run simulations on 1000s of processors and realize the benefits of HPC tools for engine simulations. Tips on how to scale up engine problems on massively parallel architectures will be discussed.

1:30 - 1:35 pm	Sibendu Som, *Principal Mechanical Engineer (ES Division)* **Welcome, Introduction, and Agenda**
1:35 - 2:00 pm	Marta García Martínez, *Asst. Computational Scientist (LCF Division)* **Hands-on Session (step-by-step). Mira job submission**
2:30 - 3:00 pm	Janardhan Kodavasal, *Postdoctoral Researcher (ES/LCF Division)* **GCI concept, science behind it**
3:20 - 3:40 pm	*Coffee Break*
3:45 - 4:15 pm	Joseph Insley, *Principal Software Development Specialist (LCF Division)* **Visualization of piston engine simulations with ParaView**
4:30 - 5:00 pm	Kevin Harms, *Senior Software Developer (LCF Division)* **Scaling up CONVERGE™: ALCF code improvements**
5:20 - 5:30 pm	Sibendu Som, *Principal Mechanical Engineer (ES Division)* **Thank you message and closure**

Argonne **Leadership
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VERIFI Workshop, Hands-on Agenda – Nov. 13, 2014 – ANL

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