

Computing@PNNL SEMINAR

Nonlinear High Performance Computing Technology Outlook for DoD Research, Development, Test, and Evaluation Community

Roy Campbell, Ph.D.

Chief Technology Officer

High Performance Computing Modernization Program



July 10 | 10 AM | EMSL Auditorium (1061)

In this talk, high-performance computing architectural and economic trends across the United States, China, Japan, and the European Union will be analyzed to provide insight into the difficult system design and resource allocation challenges faced by the U.S. Department of Defense HPC Modernization Program (HPCMP). Architectural trends within the HPCMP will also be examined, and the likelihood of key architectures (e.g., x86, many-core, GPGPUs, POWERX, ARM64) being purchased by the HPCMP in 2022 will be posited.

ABOUT:

Dr. Roy Campbell currently serves as the Chief Technology Officer of the DoD HPCMP, a \$250 million/year program chartered by Congress to revolutionize warfighter support through the increased application of HPC to critical research, development, test, and evaluation (RDT&E) initiatives. He is responsible for analyzing supercomputing architectures, tracking technical trends, articulating future computational requirements, and procuring supercomputing hardware and software valued at approximately \$50 million annually. Dr. Campbell previously served as the Deputy Director of the DoD HPCMP and the Program Manager of the Defense Research and Engineering Network (DREN). As DREN PM, he managed the delivery of network and security services valued at approximately \$50 million per year to more than 200 customer sites across 40 states and led over 140 government employees and contractors in the innovation and sustainment of the RDT&E network.



Host:
Jim Ang
ASCR Sector Manager
ang@pnnl.gov