

Beyond the Booth

Paper Presentation

Integrating Parallel File Systems with Object-based Storage Devices

Wednesday • 11:00 a.m. - 11:30 a.m. • A1 / A6

Authors: Ananth Devulapalli, Dennis Dalessandro,
Pete Wyckoff, Ph.D., Nawab Ali, P. Sadayappan

Poster Presentation

Improving All-to-All Communication for Parallel MATLAB

Tuesday • 5:15 p.m. - 7:00 p.m. • Ballroom Lobby

Authors: David E. Hudak, Ph.D., Neil Ludban, Vijay Gadepally,
Ashok Krishnamurthy, Ph.D.

Workshop Speaker

Optimizations and Extensions to pMatlab

Parallel Computing with MATLAB Workshop

Monday • 1:50 p.m. - 2:10 p.m. • C3

Speaker: David E. Hudak, Ph.D.

Masterworks

Tuesday - Thursday • C1 / C2 / C3

Invited presentations highlighting case studies of successful
industrial applications of high performance computing.

Co-chairs: Stan Ahalt, Ph.D., OSC Executive Director and
John Grosh, LLNL

Collaborator: Suzy Tichenor, Council on Competitiveness

Ohio Supercomputer Center at SC07



Join us in celebrating 20 years of the Ohio Supercomputer Center. Explore our four functions – supercomputing, networking, research, and education – through interactive demos on: Blue Collar Computing™, HPC for industry; Buckeye Bullet 2, a hydrogen fuel cell vehicle; OSCnet, the nation's most innovative statewide network; and the Ralph Regula School of Computational Science, a virtual school training tomorrow's workforce. For more information on SC07 and other OSC activities, please visit www.osc.edu.

Empower. Partner. Lead.



Ohio Supercomputer Center

Ohio Supercomputer Center Booth Schedule

Day & Time	Supercomputing Kiosk	Networking Kiosk	Research Kiosk	Education Kiosk	
Monday	7PM	New Supercomputing Hardware	Broadband Ohio Initiative	Blue Collar Computing™	School of Computational Science
	8PM	User Example: DNA Damage	Broadband Ohio Initiative	Blue Collar Computing™	School of Computational Science
Tuesday	10AM	E-Weld Portal	Shared Instrumentation	iWARP Throughput Solution	Training Offerings
	12PM	User Example: DNA Damage	Broadband Ohio Initiative	Partner Example: Virtual Prototyping	NSF Programs
	2PM	New Supercomputing Hardware	Hi-Def Videoconference	DoD PET Involvement	School of Computational Science
	4PM	User Examples	Connecting Rural Ohio	VM2M/VIPER	Young Women's Summer Institute
Wednesday	10AM	User Examples	Connecting Rural Ohio	DoD PET Involvement	School of Computational Science
	12PM	New Supercomputing Hardware	Hi-Def Videoconference	Blue Collar Computing™	Young Women's Summer Institute
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	12PM			Blue Collar Computing™	Summer Institute
	2PM		Shared Instrumentation	VM2M/VIPER	

Presentation Descriptions	<p>E-Weld Portal Neil Ludban This on-demand OSC product allows engineers to evaluate various parameters to reduce design trials of welded joints.</p>	<p>Broadband Ohio Initiative Pankaj Shah • Prasad Calyam This initiative leverages significant, prior state investments in OSCnet to expand access to state and local government.</p>	<p>Blue Collar Computing™ Ashok Krishnamurthy, Ph.D. • David Hudak, Ph.D. BCC is an OSC initiative to make supercomputing possible for small to midsize firms.</p>	<p>School of Computational Science Steven I. Gordon, Ph.D. • Leslie Southern The Ralph Regula School of Computational Science is a statewide virtual school focused on computational science.</p>
	<p>New Supercomputing Hardware Doug Johnson OSC has just installed a 22-teraflop IBM Cluster 1350, as well as a NVIDIA based General Purpose Graphics Processing Unit cluster.</p>	<p>Connecting Rural Ohio Pankaj Shah OSC and The Ohio State University Office of the CIO are bringing satellite broadband Internet connectivity to rural Ohio.</p>	<p>iWARP Throughput Solution Dennis Dalessandro This OSC software solution bridges the gap between high performance networking and TCP/IP compatibility.</p>	<p>NSF Programs Leslie Southern NSF has funded OSC's creation of a computational-chemistry training program and two computational science degree programs.</p>
	<p>User Example: DNA Damage Yu Kay Law, The Ohio State University By using molecular dynamics simulations at OSC, an OSU researcher investigates how ultraviolet light damages DNA.</p>	<p>Hi-Def Videoconference Prasad Calyam OSC engineers are examining network requirements and security issues of high-definition videoconferencing.</p>	<p>DoD PET Involvement Dick Pritchard, Ph.D. OSC leads efforts in Signal & Image Processing and Integrated Modeling & Test Environments and provides management for DoD's PET program.</p>	<p>Summer Institute Alan Chalker, Ph.D. Summer Institute is a two-week residential summer camp for supercomputing and science open to high school students.</p>
	<p>User Examples Jim Giuliani The Center supports cutting-edge research into topics such as materials science, aerospace engineering, and genomics.</p>	<p>Shared Instrumentation Prasad Calyam OSC engineers are developing software to provide researchers real-time access to scientific instruments over the Internet.</p>	<p>Partner Example: Virtual Prototyping Loren Miller, Goodyear "Jolt: Accelerating the Rate of New Product Innovation" examines Goodyear's experience with virtual prototyping.</p>	<p>Training Offerings Jim Giuliani • Alan Chalker, Ph.D. OSC trains faculty and student researchers via scientific computing workshops, Access Grid classes, and web-based portal training.</p>
	<p>For more information on these and other OSC initiatives, please visit www.osc.edu.</p>		<p>VM2M/VIPER Kevin Wohlever Virtual Microscopy and OSC's VIPER offer searchable, clinical-genomics software and data acquisition tools for cancer research.</p>	<p>Young Women's Summer Institute Leslie Southern • Kathryn Kelley To boost girls' participation in STEM fields, OSC offers the Young Women's Summer Institute for middle-school girls.</p>