

Looking Back, Looking Forward: PDC, CS and Society EduPar-20 Panel Session

The panel is keeping with EduPar's 10th anniversary theme: *looking back and looking forward*. The panelists will share their vision for the future of PDC and the implications for education, bringing the perspective of industry, NSF, and academia. The panel will reflect upon the continual challenge between quickly advancing technology looking forward while education plays catch up. Whilst, looking back, reflections on the past can provide insight and guidance - or is it true there is nothing new under the sun?

As at the previous EduPar panels, our aspiration is to allow and inspire everyone in the room to participate in the conversation. However, we have never held the panel in a "zoom room" – so please bear with us as we explore the new, uncharted virtual environment together.

Panelists:

Henry A. Gabb is a Senior Principal Engineer in Intel Architecture, Graphics, and Software. His prior positions include program manager for the Universal Parallel Computing Research Centers, a joint Intel/Microsoft initiative at the UC Berkeley and the University of Illinois, and the Director of Scientific Computing at the US Army Engineer Research and Development Center MSRC. Henry holds a doctorate degree in molecular genetics from the University of Alabama at Birmingham School of Medicine, and in information science from the University of Illinois at Urbana-Champaign. He has published extensively in computational life science and high-performance computing. Most recently, Henry is studying how the convergence of traditional high-performance computing, big data analytics, and artificial intelligence in modern workflows impacts system design.

Andrew Lumsdaine is Chief Scientist at the Northwest Institute for Advanced Computing (NIAC), where he serves as Laboratory Fellow at the Pacific Northwest National Laboratory and an Affiliate Professor in the Paul G. Allen School of Computer Science and Engineering at the University of Washington. His primary research interest is High Performance Computing, with a particular interest in scalable graph algorithms.

Margaret Martonosi is the US National Science Foundation's (NSF) Assistant Director for Computer and Information Science and Engineering (CISE). While at NSF, Dr. Martonosi is on leave from Princeton University where she is the Hugh Trumbull Adams '35 Professor of Computer Science. Her primary research interests are in computer architecture and hardware-software interface issues in both classical and quantum computing systems. Her work has included the widely-used Wattch power modeling tool and the Princeton ZebraNet mobile sensor network project.

Arnold L. Rosenberg is a Research Professor at Northeastern University, and a Distinguished University Professor Emeritus at the University of Massachusetts-Amherst. After a career in research and teaching which has spanned more than one-half century, Arny Rosenberg has morphed into a full-time author. His latest oeuvres are "Understand Mathematics, Understand Computing" (coauthored with Denis Trystram) and "Or Would You Rather Be ..." (new on Apple Books). Arny says, "I have personally witnessed the entire history of electronic computers and have participated actively in much of that history. Based on my observations, I have decided to take refuge in discrete mathematics and doggerel."