

David Keyes – King Abdullah University of Science and Technology (KAUST), Saudi Arabia

Talk title	Nonlinear Preconditioning for Implicit Solution of Discretized PDEs
Biography	<p>David Keyes directs the Extreme Computing Research Center at the King Abdullah University of Science and Technology (KAUST), where he was a founding Dean in 2009 and currently serves in the Office of the President as Senior Associate. He is a professor in the programs of Applied Mathematics, Computer Science, and Mechanical Engineering. He is also an Adjunct Columbia University, where he formerly held the Fu Foundation Chair. He works at the interface between parallel computing and PDEs and statistics, with a focus on scalable algorithms that exploit data sparsity. Before joining KAUST, Keyes led multi-institutional scalable solver software projects in the SciDAC and ASCI programs of the US Department of Energy (DoE), ran university collaboration programs at US DoE and NASA institutes, and taught at Columbia, Old Dominion, and Yale Universities. He is a Fellow of SIAM, the AMS, and the AAAS. He has been awarded the Gordon Bell Prize from the ACM, the Sidney Fernbach Award from the IEEE Computer Society, and the SIAM Prize for Distinguished Service to the Profession. He earned a B.S.E. in Aerospace and Mechanical Sciences from Princeton in 1978 and a Ph.D. in Applied Mathematics from Harvard in 1984.</p>