David E. Keyes is the Dean of the Division of Mathematical and Computer Sciences and Engineering at the King Abdullah University of Science and Technology (KAUST) and holds the Fu Foundation Professorship in Applied Mathematics at Columbia University.

With backgrounds in engineering, applied mathematics, and computer science, and consulting experience with industry and national laboratories, Keyes works at the algorithmic interface between parallel computing and the numerical analysis of partial differential equations, across a spectrum of aerodynamic, geophysical, and chemically reacting flows.

A pioneer in the development of large---scale simulation, he currently leads a mathematical cyberinfrastructure center for the U.S. DOE under the Scientific Discovery through Advanced Computing (SciDAC) initiative, and has previously led one of the Grand, National, and Multidisciplinary Challenges centers of the U.S. National Science Foundation (NSF), as well as one of DOE's Accelerated Strategic Computing centers.

For his algorithmic influence in scientific simulation, Keyes was recognized with the Sidney Fernbach Award of the IEEE Computer Society in 2007 and an ACM Gordon Bell Prize in 1999. He was awarded an NSF Presidential Young Investigator Award in 1989 and has won teaching prizes from Columbia, Harvard, and Yale universities. He is a member of the advisory committees of the Mathematical and Physical Sciences Directorate and of the Office of Cyberinfrastructure of the NSF, and has edited numerous federal agency reports on simulation in particular applications. He is also the editor of the DOE report *A Science--   based Case for Large--   scale Simulation* (2003) and he is a founding editor of SIAM's *Computational Science & Engineering* (CS&E) book series and Springer's *Lecture Notes in CS&E*.

Keyes is an affiliate of several laboratories of the U.S. Department of Energy (DOE). He was vice president of the Society for Industrial and Applied Mathematics (SIAM) from 2006 to 2009. He began his career at Yale University, where he taught for eight years, prior to joining Old Dominion University and the Institute for Computer Applications in Science & Engineering (ICASE) at the NASA Langley Research Center in 1993. Between 1999 and 2008, he served part---time as the director of the Institute for Scientific Computing Research (ISCR) at Lawrence Livermore National Laboratory. Keyes graduated *summa cum laude* with a bachelor's of science in engineering in Aerospace and Mechanical Sciences from Princeton University (1978), and earned a doctorate in Applied Mathematics from Harvard University (1984). He did postdoctoral work in the Computer Science Department of Yale University (1984---1985).