UNIVERSITÄT SALZBURG

Gastvortrag
Fachbereich Computerwissenschaften
11. April 2019 um 17:00 Uhr

Computational Challenges at Exascale

Der Fachbereich Computerwissenschaften
der Paris-Lodron-Universität Salzburg

lädt am

Donnerstag, 11. April 2019 um 17:00 Uhr

im Hörsaal T03 des Fachbereichs Computerwissenschaften,
Jakob-Haringer-Straße 2,

zum
Gastvortrag
von

Esmond G. Ng
Lawrence Berkeley National Laboratory, USA

ein.

Ao. Univ.-Prof. Dipl.-Ing. Dr. Helmut Mayer

Univ.-Prof. Dr. Marian Vajtersic
Hosts

The pursue of exascale computing is based, to a large extent, on the premise that there are scientific discoveries that require much more computing resource than is available today. Implicit in this premise is the assumption that today's algorithms may be adapted for the exascale computing regime. However, it has been well documented that significant changes in computer architectures will be needed in order to achieve exascale computing. Consequently, substantial advances in applied mathematics and out-of-the-box thinking of how we will compute may be needed in order to cope with the changes in computer architectures and to fully realize the potential of exascale computing in modeling and simulation. In this talk, we will discuss challenges that we may face at exascale and present some ideas for overcoming these challenges.

Zur Person Esmond G.Ng:

Esmond Ng has more than 35 years of experience in research and development in high-performance numerical algorithms and scientific computing, including 30 years of working with and at Department of Energy national laboratories.

His research interests are scientific computing, including sparse matrix computation, numerical linear algebra, large-scale computing, high-performance and parallel computing; mathematical software development and software engineering; and computational complexity and combinatorial scientific computing.