

Department of Computer Science
University of Houston

SEMINAR SPRING 2011

WHEN: FRIDAY, APRIL 1, 2011
WHERE: PGH 232
TIME: 11:00 AM

SPEAKER: Dr. Eric Stahlberg, National Cancer Institute

Host: Dr. Barbara Chapman

TITLE: Bioinformatics: Computational Needs and Opportunities in the Next Generation

Abstract:

The presentation will set a context by taking a walk through developments in bioinformatics over the past decade from a perspective of high-performance computing and computational science needs and opportunities. With the common ground established among biologists, computational scientists, mathematicians, software engineers and computer engineers, the presentation will look at the present and future needs and opportunities for bioinformatics in an era of increasing automation of analysis, ballooning volumes of data, systems biology and personalization of diagnostics and disease therapies. Opportunities and needs in areas including education, application portability, performance, software reliability and data security will be reviewed in the context of bioinformatics applications in scientific discovery with applications in medicine.

Brief Bio:

Eric Stahlberg is the director of a new bioinformatics core group at the Center for Cancer Research at the National Cancer Institute with a mission to deliver high-quality, reliable and timely analysis of increasing types and volumes of bioinformatics information. Most recently, Dr. Stahlberg was the computational science director at Wittenberg University where he led the program to reach new levels of student involvement and externally funded research and scholarship opportunities. Prior to joining Wittenberg University, Dr. Stahlberg led the bioinformatics program at the Ohio Supercomputer Center where he worked in close collaboration with the Ohio research community to prepare a statewide environment for bioinformatics analysis. Dr. Stahlberg received his undergraduate degree in computer science, mathematics and chemistry from Wartburg College in Waverly, Iowa, his PhD from the Ohio State University and has successfully led innovations and new initiatives in commercial, government, academic and non-profit environments. His experience also includes working for such leading companies and organizations as Cray Research Inc., Vital Images Inc., and Chemical Abstracts Service. A very early collaborator in the creation of OpenMP, he maintains active personal interest in high-performance and accelerated computing standards through his efforts in OpenFPGA and projects with the National Science Foundation.