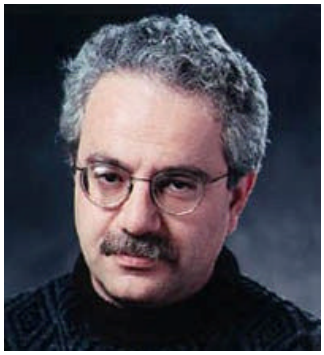
2008 CAST Awards Winners

The CAST Division Awards Committee is pleased to announce the winners of the 2008 CAST Division Awards.

The **Computing in Chemical Engineering Award** recognizes outstanding contributions to chemical engineering computing and systems technology.



This year's winner of the Computing in Chemical Engineering Award is **Dr. Yannis Kevrekidis**, Pomeroy and Betty Perry Smith Professor of Chemical Engineering at Princeton University. Yannis Kevrekidis studied Chemical Engineering at the National Technical University in Athens. He then followed the steps of many alumni of that department to the University of Minnesota, where he studied under the supervision of Rutherford Aris and Lanny Schmidt. He also worked with Dick McGehee and Don Aronson in the Mathematics Department on computational studies of dynamical systems, something that still remains the main theme of his research. He was a Director's Fellow at the Center for Nonlinear Studies in Los Alamos in 1985-86. He has been at Princeton since 1986, where he teaches Chemical Engineering and also Applied and Computational Mathematics. In 2007 he became the Pomeroy and Betty Perry Smith professor of Engineering there. His research interests are centered around the dynamics of physical and chemical processes, types of instabilities, pattern formation, and the ways to study and understand such phenomena computationally. In recent years his work has focused on modeling and computation for complex/multiscale systems. He has been a Packard Fellow, a Presidential Young Investigator, the Ulam Scholar at Los Alamos, a Hougen visitor at UW-Madison and a Moore Scholar at Caltech. He holds the Colburn Award of the AIChE, a Humboldt Prize and a Guggenheim Fellowship.

Professor Kevrekidis will give a presentation titled "No equations, no variables: modeling and computation for complex/multiscale systems".

The **Computing Practice Award** recognizes outstanding contributions in the practice or application of chemical engineering to computing and systems technology.

This year's winner of the Computing Practice Award is **Dr. David Vinson** of Air Products and Chemicals Inc.

Upon graduation from Lehigh University with his B.S. and M.S. in Chemical Engineering, David embarked on a lifelong career at Air Products and Chemicals, Inc. He became involved with the company's first implementation of computer control of a liquid oxygen and nitrogen plant. His career eventually led to global responsibility for the management of advanced control, plant efficiency, and Value Engineering. In the early 1990's his career shifted to responsibilities focused on advanced process control within the Technical Ladder at Air Products. During that time he pursued and attained a Ph.D. from Lehigh University while continuing to work full-time. Along the way, David headed the task force that justified and selected the first DCS for gas plants, justified and managed the development of an Air Products' developed real-time operating language and supervisory control system, managed a computer control project that accomplished automated startup and shutdown of an air separation plant, implemented the first computer control project applied to an unattended facility, was a member of the team that selected a rule-based next generation computer control system, chaired the committee that defined the architecture for the company's first technical computing network, and spearheaded significant reduction in the specific power and evaluated capital of liquid oxygen and nitrogen facilities through a continuous string of equipment improvement projects and value engineered design improvements. During the last ten to fifteen years Dr. Vinson was the company expert and champion for the corporate-wide use of Model Predictive Control for all business and processes. In July 2008, David retired from Air Products to accept a position of Professor of the Practice within the Department of Chemical and Biological Engineering at Tufts University where he is responsible for teaching the senior project labs and the capstone design course.

The **W. David Smith, Jr. Graduate Publication Award** (formerly the Ted Peterson Student Paper Award) recognizes an individual for published work on the application of computing and systems technology to chemical engineering. The work must have been done by the individual while pursuing graduate or undergraduate studies.

This year's winner of the W. David Smith, Jr. Graduate Publication Award is **Dr. Christos Maravelias**, Assistant Professor in the Department of Chemical and Biological Engineering at the University of Wisconsin. Christos was born in 1973 in Athens, Greece. He obtained his Diploma in Chemical Engineering at the National Technical University of Athens in 1996. Next, he moved to the London School of Economics (London, UK), where he received an MSc in Operations Research in 1997. After completing his military service in 1999, he attended Carnegie Mellon University where he started his doctoral studies under the supervision of Professor Ignacio Grossmann. In the fall of 2004 he joined the faculty of the Department of Chemical and Biological Engineering at the University of Wisconsin as an assistant professor. He is a recipient of a CAREER award. Christos' research interests are in the areas of a) production planning and scheduling, b) stochastic programming for research and development pipeline management, and c) process synthesis.

The **CAST Outstanding Young Researcher Award** recognizes an individual under the age of 40 for outstanding contributions to the chemical engineering computing and systems technology literature. The individual must be age 39 or less on December 31st of the Award year. An individual age 40 or over will be eligible for this Award if, on December 31st of the Award year, 12 years or less have elapsed since the individual received the Ph.D. degree.

This year's winner of the Outstanding Young Researcher Award is **Dr. Panagiotis D. Christofides**, Professor of Chemical and Biomolecular Engineering at the University of California, Los Angeles. Panagiotis was born in Athens, Greece, in 1970. He received the Diploma in Chemical Engineering in 1992, from the University of Patras, Greece, the M.S. degrees in Electrical Engineering and Mathematics in 1995 and 1996, respectively, and the Ph.D. degree in Chemical Engineering in 1996, all from the University of Minnesota. Since July 1996 he has been with the University of California, Los Angeles, where he is currently a Professor in the Department of Chemical and Biomolecular Engineering and the Department of Electrical Engineering. His theoretical research interests include nonlinear control, singular perturbations, and analysis and control of distributed parameter systems, multiscale systems and hybrid systems, with applications to advanced materials processing, particulate processes, biological systems, water systems and fluid flows. His research work has resulted in a large number of articles in leading scientific journals and conference proceedings and four books. A description of his research interests and a list of his publications can be found at http://www.chemeng.ucla.edu/pchristo/index.html.

Professor Christofides has been a member of the IEEE Control Systems Society Conference Editorial Board, the 2004 Program Coordinator of the Applied Mathematics and Numerical Analysis Area of AIChE and the Program Vice-Chair for Invited Sessions for the 2004 American Control Conference. He has been an Associate Editor of IEEE Transactions on Automatic Control and a Guest Editor for Chemical Engineering Science, Computers and Chemical Engineering, International Journal of Robust and Nonlinear Control and Particle and Particle Systems Characterization.
Professor Christofides has received the Teaching Award from the AIChE Student Chapter of UCLA in 1997, a Research Initiation Grant from the ACS-Petroleum Research Fund in 1998, a CAREER award from the National Science Foundation in 1998, the Ted Peterson Student Paper Award from the Computing and Systems Technology Division of AIChE in 1999, and a Young Investigator Award from the Office of Naval Research in 2001. He has also received twice the O. Hugo Schuck Best Paper Award in 2000 (with A. Armaou) and 2004 (with D. Ni, Y. Lou, L. Sha, S. Lao and J. P. Chang), and the Donald P. Eckman Award in 2004, all from the American Automatic Control Council. He was a plenary speaker in the 2005 American Control Conference.

The "**CAST Directors' Award**," established in 1997, is given for the best poster presentations at the AIChE Annual Meeting. The First Place award consists of a plaque with citation and an honorarium of $500. The winners are selected by majority vote of CAST Directors, who attend the poster session. The results are announced as soon as possible after the meeting and a formal presentation of the plaque and honorarium for the First Place winner will be made at the CAST Award Dinner to author(s) attending the next AIChE Annual Meeting.

On behalf of CAST, we are delighted to announce the winners of the eleventh annual CAST Directors' Award for the 2007 AIChE Annual Meeting in San Francisco. Mark Darby and Michael Nikolaou of the University of Houston, for the paper titled “Design of Experiments for Multivariable Systems Subject to Integral Controllability”.