Distinguished Colloquia in Computational Engineering Mathematics

Lunch Included Tuesday, October 4, 2016

Schedule and Topics:

1200: Guests attend Cadet Lunch Formation– Diagonal Walk

<u>What is Computational</u> <u>Engineering Mathematics?</u>

1200: Arrive West Point Club- Buffet is Open

1215-1230: Welcome, Introductory Remarks, and Session Overview

1245-1600: Presentations and Open Discussion

For more information, please contact:

COL Jake LaPorte grover.laporte@usma.edu

In general, computational engineering mathematics (CEM) is the development and application of computational models and simulations to solve complex physical problems arising in engineering analysis and design, as well as in natural phenomena.

West Point, NY

The development of the cell phone you use, our understanding of Earth's climate, and the weaponry advances of the U.S. Military could not have been accomplished without CEM. Engineers use it to build new and better products, researchers use it to better understand and predict complex physical phenomena, and academics use it to advance the field itself.

Join us as the Department of Mathematical Sciences sponsors a Colloquia on the most relevant topics of Computational Engineering Mathematics!

Speaker Profiles:



Professor Carlos Brebbia: Director of the Wessex Institute of Technology and Founder and Chairman of the Computational Mechanics International Group, a software development and industrial consulting company. He is the originator of the Boundary Element Method and has written numerous scientific papers and is the author or co-author of 14 technical books. He also serves as the Editor of several journals including the International Journal of Computational Methods and Experimental Measurements. His current interests span the analysis of advanced structures to the modelling of environmental problems.



Dr. Theodore V. Hromadka, II: Professor of Mathematics at the U.S. Military Academy, West Point. Principal Engineer and Hydrologist for over 15 years at the consulting firm Hromadka and Associates. He holds several professional licenses, including Civil Engineer, Geoscientist, and Geologist, and holds professional certifications in Hydrology for both surface water and groundwater. His publication record includes over 400 papers and book chapters and over 20 books, and he has prepared or directed project reports for over 1000 studies. He has served as an Expert Witness in over 500 Superior Court matters, appearing in over 60 Court trials. He has over 40 years of professional engineering experience and over 35 years of academic and research at various Institutions, and is a member of two American Academies.



845-938-7685

Dr. Paolo Zannetti, QEP: President and Founder of EnviroComp Consulting, Inc. and the non-profit EnviroComp Institute. He has performed studies and scientific research in environmental sciences for over four decades. He has written 300+ publications, and 40+ books and book chapters, including in the fields of atmospheric sciences and numerical modelling. Dr. Zannetti has studied air quality problems all over the world, often using computer models

to simulate the transport and fate of atmospheric chemicals. In addition, Dr.

Zannetti has provided testimony at depositions/trials in more than 40 cases.





Professor Prasada Rao, PhD: Professor in Civil and Environmental Engineering Department at California State University, Fullerton. He is also the Associate Director for the International Institute for Computational Engineering Mathematics. His current research areas relate to Climate Change, Surface and Subsurface Flow Modelling and Computational Mathematics.