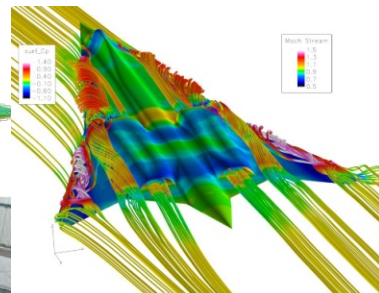




American Institute of
Aeronautics and Astronautics
Dayton-Cincinnati Section

Lunch 'n' Learn
Physics-Based System Level
Multi-disciplinary Analysis
and Optimization of
Aerospace Vehicles
Guest Speaker:
Dr. Ray Kolonay
Friday, 18 Nov 2016



Dr. Ray Kolonay will provide an overview of the Aerospace Systems Directorate's Multidisciplinary Science and Technology Center. MSTC focuses on the discovery, assessment and exploitation of coupled system behavior for the optimization of revolutionary aerospace vehicles. A description of MSTC's three teams: modeling for design, analysis for design and prototype validation along with the applications of MSTC's work applied to Efficient Supersonic Air Vehicles (ESAV) and Small Unmanned Air Vehicles (SUAVs) will be given. The Centers vision is to develop and use higher fidelity models based on physics to perform the conceptual design and compute the information required for the modeling and simulation analysis with the same resources and time that traditional conceptual design takes and evaluate tens of configurations at the preliminary level of fidelity rather than the current practice of one or two. Three primary benefits can be obtained from the new process; generation of information with less uncertainty associated with it for making decisions concerning system capabilities, technology assessment, and technology risk reduction, reduction in the discovery of late defects within the system due to physics, and opening up the design space to enable novel concepts and otherwise unobtainable capability by leveraging the discipline couplings.

Dr. Ray Kolonay is the Director of the Multidisciplinary Science & Technology Center within AFRL's Aerospace Systems Directorate. He has over thirty years of experience in the development, use, and support of mechanical analysis and automated design methods and tools. Prior to this Dr. Kolonay held a position at the General Electric Company Corporate Research and Development Center where he developed design methods for various mechanical systems. Dr. Kolonay is an AFRL Fellow, ASME Fellow, Fellow of the Royal Aeronautical Society (RAeS), and an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA).

Time

11:45 AM

Location

China Garden Buffet
112 Woodman Dr.
Dayton, OH 45431

Lunch

You will be able to
purchase the buffet

