



American Institute of  
Aeronautics and Astronautics  
Dayton-Cincinnati Section

**Lunch 'n' Learn**  
***Pulse Detonation and Small Engines***  
**Friday 21 Aug 2009**  
***Guest Speaker: Dr. Fredrick Schauer***

Dr. Fredrick R. Schauer is a national leader in the development of pulsed detonation engine (PDE) technology for high-Mach propulsion. PDE propulsion will enable air vehicles to accelerate from rest to speeds approaching Mach 4.5. In fact, the most efficient propulsion cycle from Mach 3.5-4.5, and can be an order of magnitude less expensive than other engine alternatives in this speed class. Dr. Schauer is also leading the way in the development of technology for inserting detonation hardware into turbine engines to improve overall engine cycle efficiency and reduce fuel burn. Dr. Schauer is a world-class researcher and a dynamic leader where research and development groups throughout the world look to Dr. Schauer for direction and ideas. He has built world-class R&D team which includes over 20 scientists, engineers, students, and technicians. Dr. Schauer and his team have conceived and built engine for first-ever PDE-powered aircraft and completed flight testing on 31 January 2008 flight. The flight test is certainly the most visible accomplishment but there is a tremendous technology base that Dr. Schauer is building that will make pulsed detonation technology a viable option for missiles in the near term and larger hybrid engines in the far term. Dr. Schauer and partners from industry were finalists for the *Aviation Week* 2008 Laureate Awards in the Aeronautics/Propulsion category. He has several awards including AFOSR Star Team (2006-2009), AFRL Scientific/Technical Achievement Award (2004, 2002), Heron Award, Propulsion Directorate (2002), and most recently was named AIAA Engineer of the Year.

**Time**

11:45 AM

**Location**

China Garden Buffet  
112 Woodman Dr.  
Dayton, OH 45431

**Lunch**

You will be able to  
purchase the buffet

