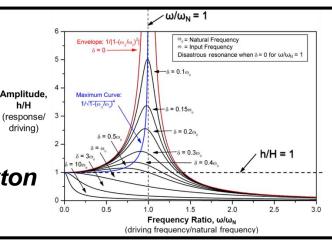# AIAA
American Institute of Aeronautics and Astronautics Dayton-Cincinnati Section

Lunch 'n' Learn
November 8, 2019
"Large Scale Sustainable Energy from Tidal Resonance"
Guest Speaker:
Dr. John Schauer , University of Dayton

Abstract: The US currently has approximately a terrawatt of peak electrical generating capacity and utilizes similar energy consumption rates for transportation and heating - principally from hydrocarbon fuels. While energy supplies are currently relatively inexpensive, much of this energy usage is inefficient and will have significant impact upon both future energy availability and long-term consequences. This seminar will discuss a possibility for a largely unused sustainable energy source. Tidal energy is huge but so dispersed that it is difficult to harness. The Bay of Fundy is unique and offers an example of tidal effects causing enough tidal energy to be concentrated, which if converted to electrical power could provide up to half the electrical power for our country. This huge energy potential begs to be studied. A model using the Bay of Fundy fundamentals will be presented that could produce all the electrical power of North America. Implementing such a system has problems. The next steps towards achieving this fantastic potential will be discussed.

Biography: John Schauer received his Ph.D. from Stanford before returning to Ohio and serving as an engineer: first as an officer in the US Army, then as a research contractor and since 1968 as a professor at the University of Dayton. While aspiring to grow up to be a cowboy, most of his rides on the open range have involved either bikes or carousel horses. Despite mastering rope spinning, he is more known for his wrangling of engineering equations. He is currently an Emeritus Professor at the University of Dayton and enjoys going on adventures with his wife and family.

Time: *11:45 am*

Location:
China Garden Buffet
112 Woodman Dr.
Dayton, OH 45431

Lunch:
You will be able to
purchase the buffet