1113-65-128 **Jin Wang***, University of Tennessee at Chattanooga, Chattanooga, TN 37403. *Computing fluid-structure interaction.*

The interactions between fluid flows and immersed solid structures are nonlinear multi-physics phenomena that have applications to a wide range of scientific and engineering disciplines. Mathematically, such problems are described by systems of evolutionary PDEs linking the dynamics of the fluid and structure. In this talk, I will review representative numerical techniques currently available for computing fluid-structure interaction problems, with a focus on methods of the immersed boundary type. I will discuss opportunities and challenges faced by researchers in this field, and emphasize the importance of interdisciplinary effort for advancing the study in fluid-structure interaction. (Received August 17, 2015)