Meeting: 1006, Lubbock, Texas, SS 16A, Special Session on Partial Differential Equation and Its Application in Biomedical Study

1006-35-240   **Padmanabhan Seshaiyer*** (`padhu@math.ttu.edu`), Box 41042, Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409-1042. *On the characterization of hyperelastic membranes in soft-tissue mechanics.*

In this talk, we will review analytical, experimental and numerical methods for studying the non-linear behavior of hyperelastic membranes of interest in biomechanics. In particular, we will consider the soft-tissue biomechanics of intracranial saccular aneurysms, the rupture of which is the most common cause of subarachnoid hemorrhage. (Received February 15, 2005)