1077-00-524   **Lalitha Venkataramanan*** (`LVenkataramanan@slb.com`), One Hampshire Street, MD-253, Cambridge, MA 02420. *Some Applied Math Problems of Interest at Schlumberger.*

The search for oil and gas has three objectives: to identify and evaluate hydrocarbon-bearing reservoirs; to bring hydrocarbons to the surface safely and cost-effectively, without harming the environment; and to maximize the yield from each discovery. The first part of the talk will focus on some areas of research in applied mathematics in Schlumberger. These areas include forward modeling and inversion, uncertainty analysis, telemetry, pattern recognition as well as signal and image processing. The second part of the talk will focus on application of Mellin Transform to analyze downhole nuclear magnetic resonance data to infer petro-physical as well as properties of insitu hydrocarbon. (Received September 06, 2011)