**Materials Seminar**

Department of Materials Science & Engineering

# Tuesday October 24, 2017

2:15 – 3:15 ~ SERF 307

**Please join us for refreshments at 2:10**

"Non-destructive inspection of packaged integrated circuits"

**Speaker:**



**Dr. Tom Moore**   
President

Waviks Inc.

Abstract:

Integrated circuit package geometries are converging with die level planar dimensions. Chip designers have embraced vertical integration. The capabilities of current non-destructive inspection tools have already been exceeded. Comparing capabilities and limitations of acoustic imaging and x-ray imaging using real packages is a great way to learn about these techniques and the gaps in current capabilities moving forward.

Biography:

Tom Moore received his Bachelors in Physics (1976), and his Masters and PhD in Materials Science Engineering (1978, 1981) from the University of Virginia. Tom worked for 21 years in Texas Instrument’s Central Research Labs where he managed the Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), Focused Ion Beam (FIB) and Scanning Acoustic Microscopy (SAM) labs. Tom developed and productized the first digital acoustic microscope for automated IC package inspection. Tom later managed TI’s Silicon Technology Ramp and Advanced Characterization group during TI’s conversion to copper and low-k dielectric processes. He left TI as a Distinguished Member of the Technical Staff to found Omniprobe in 2001. Omniprobe was acquired by Oxford Instruments in 2011. Tom retired from Omniprobe in 2013 and is now president of Waviks, Inc., in Dallas, TX. Waviks is a developer of advanced characterization processes and tools for nano-analysis. Tom was the General Chair for the International Symposium for Test and Failure Analysis (ISTFA) 2003 (an ASM EDFAS event), was elected to the Electron Device Failure Analysis Society (EDFAS) Board of Directors (2005 – 2014) and served as EDFAS President from 2010-2011. Tom became an ASM Fellow in 2015, and was elected to the ASM Board of Trustees in 2017. Tom was also the General Chair of the IEEE-sponsored International Reliability Physics Symposium (IRPS 2010) and was President of the IRPS Board of Directors in 2012. Tom has published over 90 technical papers and chapters and has over 20 patents.