

Symposium Title: Mechanics and Materials of Integrated Structures in Advanced Technologies

The Executive Committee of the Applied Mechanics Division has recently established a new Technical Committee on Integrated Structures, co-chaired by Jun He of Intel Corporation and Rui Huang of the University of Texas at Austin. The new Technical Committee plans to organize a symposium at the 2006 ASME IMECE. This symposium will bring together a group of active researchers from both academia and industries working in the cross-disciplinary field of applied mechanics, materials science/engineering, and advanced technologies. It will provide a link between applied mechanics and new applications. Topics of interest include, but not limited to:

- Reliability of interconnect systems and low- k dielectrics
- Stability of interconnect structures during processing and packaging
- Strain engineering for Metal-Oxide Semiconductor (MOS) technology
- Mechanics of macroelectronics (flexible display, thin-film solar cells, etc.)
- Multi-field interactions in MEMS/NEMS and biomedical devices
- Novel mechanical testing methods for integrated small structures
- Stress generation during manufacturing of integrated structures
- Stress-induced structural evolution and self assembly at micro/nano-scales

We request 3 sessions from AMD and plan for more sessions through joint sponsorship with other divisions: 3 sessions from Materials Division, and 3 sessions from Electronic and Photonic Packaging Division.

Symposium Organizers:

Jun He (Intel Corp.)
Rui Huang (Univ of Texas-Austin)
Aman Haque (Penn State Univ)
Zhengfang Qian (Motorola)
Jianmin Qu (Georgia Tech)