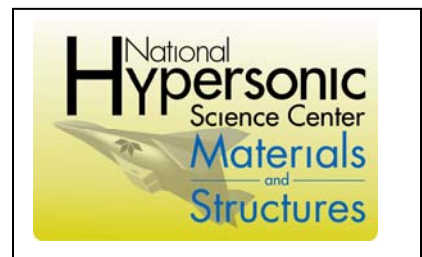




## **Symposium: Virtual Testing for Hybrid Hierarchical Materials for High Temperature Applications**

You are cordially invited to submit abstracts to the mini-symposium "Virtual Testing for Hybrid Hierarchical Materials for High Temperature Applications" (MS5041), as part of the 9th World Congress on Computational Mechanics (WCCM 2010). This event will be held in Sydney, Australia, July 19-23, 2010. (<http://www.wccm2010.com>). We would be very grateful if we could have your contribution and the pleasure of your company in Sydney.

The mini-symposium will include a number of papers from researchers working in the new US National Hypersonics Science Center (a joint NASA and AFOSR program). We anticipate a strong collection of experimental and theoretical papers, presenting the most recent advances in this fast-moving scientific area. Papers are solicited on the following topics:



- 1) the design of high temperature structures with hybrid, hierarchical materials that achieve substantial breakthroughs in oxidation resistance, maximum use temperature, and maximum supportable heat flux;
- 2) the basic science needed to guide materials design;
- 3) the engineering science needed to enable designers to use the new materials with efficiency and confidence;
- 4) new experimental methods that enable direct visualization of the mechanisms that control a material's performance,
- 5) multi-scale probabilistic model formulations that can simulate mechanisms at various length scales with high fidelity; and
- 6) new methods for combining experiments and multiscale models into a virtual test system.

**The deadline for abstract Submission is 12/15/2009 but abstracts are still accepted.** The guidelines for abstract preparation and submission can be found at <http://www.wccm2010.com/program.htm>.

### **Travel Grants for US Graduate Students and Postdoctoral Researchers:**

US AFOSR has generously funded travel awards to graduate students and postdoctoral scholars who participate in this symposium and are currently working or studying in any US institution. Awards will generally range from \$500 and up to \$1000. Researchers from minority or under-represented groups are especially encouraged to apply. Please submit your abstract to the MS 5041 through the conference website by the deadline and send a note requesting consideration for support and your resume to Prof Qingda Yang at [qdyang@miami.edu](mailto:qdyang@miami.edu) before March 1, 2010. Awardees will be announced by May 31, 2010.