

## **Richard P. Stadelmann**

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### **Professional Preparation**

B.S. Aerospace Engineering, University of Central Florida, 3.275 GPA, May 2011  
M.S. Aerospace Engineering, University of Central Florida, 3.458 GPA, Expected Grad. 2013  
PhD. Mechanical Engineering, University Of Central Florida, 3.458 GPA, Expected Grad. 2015

### **Appointments**

University of Central Florida: Undergraduate Teaching Assistant, August 2009 - May 2011  
University of Central Florida: Undergraduate Research Assistant, January 2010 - May 2011  
University of Central Florida: Graduate Teaching Assistant, August 2011- Present

### **Internships**

NSF Career International Supplement - University of Trento, Trento, Italy, May 2011-July 2011

### **Fellowships**

Gordon Research Travel Fellowship-Solid State Studies in Ceramics August 2012

### **Research Interests**

- Aerodynamics
- Ultra High Temperature Composite Ceramics for Hypersonic Application
- Hypersonic Flows
- Hypersonic Vehicles and Vehicle Design
- Sub, Trans, and Supersonic Flows
- Laminar and Turbulent Flows
- Computational Fluid Dynamics

### **Presentations/Publications**

- [1] Fist, N., Dinan, J., Stadelmann, R., Orlovskaya, N. "An In-situ Three-Point Bending Device for Measurements of Vibrational Response of Ceramics under Stress by Micro Raman Spectroscopy", *Advances in Applied Ceramics*, 111, 7, 433-439, 2012.
- [2] Lugovy, M., Subbotin, V., Stadelmann, R., Orlovskaya, N., Neubert, M., Aenziris, C., Graule, T., Kuebler, J. "Mechanical Properties of ZrB<sub>2</sub>-SiC Ceramic Composites: Room Temperature Instantaneous Behavior", *Advances in Applied Ceramics*, 112, 1, 9-16, 2013.
- [3] Stadelmann, R., Fist, N., Orlovskaya, N., Radovic, M., Sglavo, V., Reece, M. "Mechanical Properties and Residual Stresses in ZrB<sub>2</sub>-SiC Spark Plasma Sintered Ceramic Composites", in preparation to submission to the *Journal of the European Ceramic Society*.
- [4] Stadelmann, R., Fist, N., Orlovskaya, N., Radovic, M., Sglavo, V., Reece, M. "Mechanical Properties and Residual Stresses in ZrB<sub>2</sub>-SiC Spark Plasma Sintered Ceramic Composites", Poster Presentation, 36<sup>th</sup> ICACC Conference, Daytona Beach, FL, January 2012.
- [5] Stadelmann, R., Fist, N., Orlovskaya, N., Radovic, M., Sglavo, V., Reece, M. "Mechanical Properties and Residual Stresses in ZrB<sub>2</sub>-SiC Spark Plasma Sintered Ceramic Composites", Poster Presentation, Gordon Research Conference, Solid State Studies in Ceramics, Mount Holyoke, MA, August 2012.
- [6] Stadelmann, R., Fist, N., Orlovskaya, "Spark Plasma Sintered ZrB<sub>2</sub>-SiC composites", Poster Presentation, 37<sup>th</sup> ICACC Conference, Daytona Beach, FL, January 2013.

### **Synergistic Activities**

SAE Aero Design Microclass Competition, University of Central Florida Team Member, 2011

### **Engineering Membership**

The American Ceramic Society (ACerS), Association for Iron & Steel Technology (AIST), The Materials Information Society (ASM International), The Minerals, Metals and Materials Society (TMS), Society of Automotive Engineers (SAE)

### **Advisor**

Dr. Nina Orlovskaya, Department of Mechanical, Materials and Aerospace Engineering, University of Central Florida Orlando, FL