

## DAVID ARTHUR POWELL

**Email:** dpoweLL1@stanford.edu

### EDUCATION

- 2007 **Ph. D. in Mechanical Engineering**, University of California at Berkeley  
**Ph. D. Advisor:** Professor T. I. Zohdi
- 2005 **Master of Science in Mechanical Engineering**, University of California at Berkeley
- 2003 **Bachelor of Arts in Engineering**, Dartmouth College, Hanover, NH

### POST GRADUATE PROFESSIONAL APPOINTMENTS

- 1/2010 - 5/2010 **Instructor**, UC Berkeley Extension
- 6/2009 - 8/2009 **Instructor**, Stanford's 2009 Summer Institute for Undergraduates in Computational Science and Engineering
- 9/2008 + **Post-doctoral Student**, Stanford University, Palo Alto, CA
- 3/2008 - 8/2008 **Post-doctoral Researcher**, University of California at San Francisco
- 10/2007 - 2/2008 **Post-doctoral Researcher**, University of California at Berkeley

### PROFESSIONAL SERVICE

- 12/2006 - 07/2007 **USNCCM9 Assistant to Conference Chairs**, Head Scheduler, Creator of Conference Pamphlet and Booklet
- 2005, 2006 **Outside Consultant for Boeing Company**, Regarding Graduate Research, Seattle, WA

## AWARDS

- 2007 **Winner of USACM Student Presentation Competition in Material Modeling**  
2004 **Outstanding Graduate Student Instructor**  
2002 **Rufus Choate Scholar**, Dartmouth  
1999 **National Merit Scholar**

## PUBLICATIONS

Powell, D.A. & Zohdi, T.I. (2009). Attachment mode performance of network-modeled ballistic fabric shielding. *Composites: Part B*. Vol. 40, pp. 451-460.

Powell, D.A. & Zohdi, T.I. (2009). A note on flaw-induced integrity reduction of structural fabric. *International Journal of Fracture*. Vol. 158, Number 1, July 2009, pp. 89-96.

Powell, D., Zohdi, T.I., Johnson, G. (2008) Multiscale Modeling of Structural Fabric Undergoing Impact. FAA report DOT/FAA/AR-08/38.

Loikkanen, M. & Powell, D. (2007) Jet Engine Rotor Fragment Impact on Composite Panels. *Journal of Structural Mechanics*. Vol. 40, No 4, 2007, pp. 80-94.

Zohdi, T. I. & Powell, D. (2006) Multiscale Construction and Large-Scale Simulation of Structural Fabric Undergoing Ballistic Impact. *Computer Methods in Applied Mechanics and Engineering*. Vol. 195, Issues 1-3, January 2006, pp. 94-109.

### **Pending:**

Powell, D. & Loikkanen, M. "Explicit Finite Element Modeling of Composite Plates for Containment of Critical Aircraft Components from Jet Engine Debris - Finite Element Model Development and Simulation of Experiments." Report Submitted to FAA October 2008 for Publication.

Powell, D., Zohdi, T.I., Johnson, G. "Failure Characterization of Composite Aircraft Materials Under Ballistic Impact." Report Submitted to FAA August 2007 for Publication.

## PRESENTATIONS

Powell, D., Zohdi, T., Farhat, C. (July, 2009) Multi-Scale Modeling and Large-Scale Transient Simulation of Ballistic Fabric Undergoing Impact. 10th US National Congress on Computational Mechanics, Columbus, Ohio.

Powell, D., Zohdi, T., Farhat, C. (December, 2008) Multi-Scale Modeling and Large-Scale Transient Simulation of Ballistic Fabric. 26th Army Science Conference Proceedings, Orlando, Florida.

Powell, D., Zohdi, T., Farhat, C. (June, 2008) Multi-Scale Construction and Large-Scale Simulation of Dynamically Loaded Structural Fabric. 8th World Congress on Computational Mechanics, Venice, Italy.

Loikkanen, M., Praveen, G., Powell, D. (June 2008) Simulation of Ballistic Impact on Composite Panels. 10th International LS-DYNA Users Conference, Dearborn, Michigan.

Powell, D. & Zohdi, T. I. (2007) Multi-Scale Construction and Large-Scale Simulation of Dynamically Loaded Structural Fabric. 9th US National Congress on Computational Mechanics, San Francisco, California.

Powell, D. & Zohdi, T. I. (2006) Modeling and Simulation of Ballistic Fabric. Berkeley-Stanford Computational Fest, Stanford, California.