

Michael Raulli

Department of Mechanical Engineering
800 Lancaster Avenue
Villanova, PA 19085

610.519.4798

michael.raulli@villanova.edu

<http://www.homepage.villanova.edu/michael.raulli>

Journal Publications:

1. **M. Raulli**, R. Poola Subramanyaswamy and K. Maute, "Reliability Based Design Optimization of MEMS Considering Pull-in," Submitted to *Computers and Structures*
2. **M. Raulli** and K. Maute, "Topology optimization of electrostatically actuated microsystems," *Structural and Multidisciplinary Optimization* Published Online July 28, 2005.
3. **M. Raulli** and K. Maute, "Optimization of Fully Coupled Electrostatic-Fluid-Structure Interaction Problems," *Computers and Structures* 83(2-3): 221-233, 2005.
4. M. Allen, **M. Raulli**, K. Maute and D.M. Frangopol, "Reliability-Based Analysis and Design Optimization of Electrostatically Actuated MEMS," *Computers and Structures*, 82(13-14):1007-1020, 2004
5. J. S. Kong, D.M. Frangopol, **M. Raulli**, K. Maute, R.A. Saravanan, L.-A. Liew, and R. Raj, "A methodology for analyzing the variability in the performance of a MEMS actuator made from a novel ceramic," *Sensor and Actuators A: Physical*, 116(2):336-344, 2004.
6. K. Maute and **M. Raulli**, "An Adaptive Interactive Method for Computer Aided Optimal Design," *Computer and Structures*, 82(1):71-79, 2004

Conference Proceedings:

1. **M. Raulli**, "Electro-mechanical Topology Optimization Considering Non-matching Meshes," *IUTAM Symposium on Topological Design Optimization of Structures, Machines and Materials, Oct 26-29, 2005, Copenhagen, Denmark*
2. **M. Raulli**, Rajesh Poola Subramanyaswamy and Kurt Maute, "Reliability based design optimization of analog micro-mirror using pull-in criteria," *Proceedings of International Conference on Structural Safety and Reliability, June 19-23, 2005, Rome, Italy*
3. **M. Raulli** and K. Maute, "Topology Optimization of Electrostatic MEMS," *Proceedings of 10th AIAA/ISSMO Conference on Multidisciplinary Analysis and Optimization, Aug. 30 - Sep. 2, 2004, Albany, NY*
4. **M. Raulli** and K. Maute, "Fully Coupled Analysis and Sensitivity Analysis for Electrostatic-Fluid-Structure Interaction Problems," *2nd MIT Conference on Computational Mechanics June 17-20 2003, Cambridge, MA, 1497-1500*
5. **M. Raulli** and K. Maute, "Symbolic Geometric Modeling and Parameterization for Multiphysics Shape Optimization," *Proceedings of 9th AIAA/ISSMO Conference on Multidisciplinary Analysis and Optimization, September 4-6, 2002, Atlanta, GA.*