

# BETTY MOHLER

## Curriculum Vitae

### Permanent USA Address

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### Dept. Address

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<b>Education</b>	<b>University of Utah</b>	Salt Lake City, UT
	Ph.D. in Computer Science, January 2007 Under the guidance of Dr. William B. Thompson and Dr. Sarah H. Creem-Regehr Advanced to candidacy November 2004.	
	<b>Millersville University of Pennsylvania</b>	Millersville, PA
	B.S. in Computer Science, May 2001.	

### Research Interests

Virtual environments, Computer graphics, Simulators, and Visual perception

### Work Experience

<b>Postdoctoral fellow</b>	01/2007-present
Max Planck Institute, Tübingen, Germany Under the guidance of Dr. Heinrich H. Bühlhoff	
<b>Research Assistant</b>	01/2003–01/2007
University of Utah, Salt Lake City, UT Under the guidance of Prof. William B. Thompson and Prof. Sarah H. Creem-Regehr	
<b>Visiting Research Assistant</b>	02/2005–05/2005
Max Planck Biological Cybernetics, Tübingen, Germany. Under the guidance of Dr. Heinrich Bühlhoff.	
<b>Teaching Assistant</b>	Fall, 2003
Scientific Visualization, Dr. Ross Whitaker, University of Utah	
<b>Teaching Assistant</b>	Spring, 2001
Haptics Programming, Dr. Roger Webster, Millersville University	
<b>Database Computer Specialist</b>	1998–2001
Lancaster Laboratories, Lancaster, PA.	
<b>Research Assistant</b>	1999–2001(summers)
Hershey Medical Center: Penn State University Hospital, Hershey, PA.	

### Refereed Publications

B. J. Mohler, William. B. Thompson, Sarah H. Creem-Regehr, Herbert L. Pick

Jr., and William H. Warren “**Visual flow influences gait transitions and preferred walking speed**”, *Experimental Brain Research*, (in press)

B. J. Mohler, S. H. Creem-Regehr, William B. Thompson “**The influence of head-mounted display feedback on real and virtual environment egocentric distance judgments**”, *ACM SIGGRAPH Symposium on Applied Perception in Graphics and Visualization*, (August, 2006)

B. J. Mohler, W. B. Thompson, S. H. Creem-Regehr, P. Willemsen, H. L. Pick, Jr. and J. J. Rieser, “**Calibration of locomotion due to visual motion in a treadmill-based virtual environment**”, *ACM Transactions on Applied Perception* (in press)

B. J. Mohler, B. Riecke, W. B. Thompson and H. H. Bühlhoff, “**Measuring vection in a large screen virtual environment**”, *Second SIGGRAPH Symposium on Applied Perception in Graphics and Visualization*, p 103-109 with ECVP, A Couruna, Spain. ACM Press, New York, NY, USA (October, 2005)

W. B. Thompson, S. H. Creem-Regehr, B. J. Mohler, and P. Willemsen, “**Investigations on the Interactions Between Vision and Locomotion Using a Treadmill Virtual Environment**” *Proc. SPIE/IS&T Human Vision & Electronic Imaging Conference*, January 2005.

B. J. Mohler, W. B. Thompson, S. H. Creem-Regehr, H. L. Pick, W. H. Warren Jr., J. J. Rieser, and P. Willemsen, “**Visual Motion Influences Locomotion in a Treadmill Virtual Environment**”, *ACM SIGGRAPH Symposium on Applied Perception in Graphics and Visualization*, p. 19-22. Los Angeles, CA USA. August 7-8, 2004.

R. W. Webster, R. Haluck, B. Mohler, R. Ravenscroft, E. Crouthamel, T. Frack, S. Terlecki, J. Shaeffer, “**Elastically Deformable 3D Organs for Haptic Surgical Simulators**”, *Proceedings of the Medicine Meets Virtual Reality Conference, (MMVR '2002)*, Newport Beach, California, Sponsored by Aligned Management Association and the University of California at Irvine, IOS Press, January 23-26, 2002.

R. Webster, D. Zimmerman, B. Mohler, M. Melkonian, R. Haluck, “**Prototype Haptic Suturing Simulator**”, *Proceedings of the Medicine Meets Virtual Reality Conference, (MMVR '2001)*, Newport Beach, California, Sponsored by Aligned Management Association and the University of California at Irvine, IOS Press, January 24-27, 2001, pps. 567-569.

R. Haluck, R. Webster, A. Snyder, M. Melkonian, B. Mohler, M. Dise, A. LeFever, “**A Virtual Reality Surgical Trainer for Navigation in Laparoscopic Surgery**”, *Proceedings of the Medicine Meets Virtual Reality Conference, (MMVR '2001)*, Newport Beach, California, Sponsored by Aligned Management Association and the University of California at Irvine, IOS Press, January 24-27, 2001, pps. 171-176.

#### Refereed Abstracts

B. J. Mohler, W. B. Thompson and S. H. Creem-Regehr “**Adaptation improves both motor and verbal distance estimations in HMD-based virtual environments**”, *Vision Sciences Society Conference*, 2006

B. J. Mohler, S. H. Creem-Regehr and W. B. Thompson, “**Speed of visual flow affects comfortable walking speed on virtual reality treadmill**”, *Vision Science Society Conference*, 2005

W. B. Thompson, B. J. Mohler, and S. H. Creem-Regehr, “**Does Perceptual-Motor Recalibration of Locomotion Depend on Perceived Self Motion or the Magnitude of Optical Flow?**” *Vision Sciences Society Conference*, 2005

B. J. Mohler, W. B. Thompson, S. H. Creem-Regehr, P. Willemsen, J. J. Rieser, and H. Pick, Jr.. “**Perceptual-Motor Recalibration on a Virtual Reality Treadmill**”, *Vision Sciences Society Conference*, 2004.

S. H. Creem-Regehr, B. J. Mohler, and W. B. Thompson, “**Perceived slant is greater from far versus near distances**”, *Vision Sciences Society Conference*, 2004

D. Hutchens, R. Webster, B. Mohler, M. Smith, D. Zimmerman, M. Dise, A. Lefever, R. Haluck, W. Wang and A. Snyder, “**Integrating Haptics into an Undergraduate Computer Science Curriculum**”, National Science Foundation (NSF) Instrumentation and Laboratory Improvement Program Exhibit, *National ACM SIGCSE Conference (ACM/SIGCSE, 2000)* Austin, Texas March 8-12, 2000.

**Invited Talks** **Visual influence on locomotion (Host: Dr. Heinrich Bühlhoff)**, Group meeting, Max Planck Biological Cybernetics, March 15, 2005.

**Interactions between visual information for self-motion and locomotion (Host: Dr. Jack Loomis)**, Joint Psychology & Computer Science seminar, University of Santa Barbara, March 6, 2004.

**Interactions between visual information for self-motion and locomotion (Host: Dr. Dennis Proffitt)**, Psychology seminar, University of Virginia, May, 2004.

**Computer graphics research at the University of Utah: What you should know about graduate school (Host: Dr. Roger Webster)**, Undergraduate computer science seminar, Millersville University, May, 2004.

#### **Awards and Honors**

**Brown Research Fellowship** 2001–2002  
School of Computing, University of Utah.

**Magna Cum Lauda** 2001  
Computer Science Department, Millersville University

**James E. Koken Scholarship Recipient** 2001  
Computer Science Department, Millersville University  
For distinguished undergraduate scientific research

**Odd Fellow and Rebekah Lodge Scholarship Recipient** 1997-2001  
Millersville University

**NCAA Academic All-American** 1998-2001  
For academic excellence and athletic excellence in Division II  
Cross Country and Track & Field, Millersville University

**Undergraduate Research Stipend** 1998-2001  
Department of Computer Science, Millersville University

**Memberships** Vision Sciences Society  
ACM

## References

### **William B. Thompson**

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### **Peter Shirley**

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