# Lynette A. Jones

#### Senior Research Scientist Department of Mechanical Engineering, MIT

#### Education

B.A.	University of Auckland, New Zealand	1976
M.A.	University of Auckland, New Zealand	1978
Ph.D.	McGill University, Canada	1983
Postdoctoral fellow	Montreal Neurological Institute	1983-1986
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### **Professional Employment**

Visiting Professor, School of Chemical Engineering, Purdue University	2021	
Postdoctoral Officer, Department of Mechanical Engineering, MIT		
Senior Research Scientist, Department of Mechanical Engineering, MIT	2010-	
Principal Research Scientist, Department of Mechanical Engineering, MIT	1994-2010	
Adjunct Professor, Department of Surgery, McGill University	1994-1999	
Associate Professor (with tenure), School of Physical and Occupational Therapy, McGill University	1991-1994	
Research Associate, Department of Biomedical Engineering, McGill University	1990-1994	
Associate Member, Department of Neurology and Neurosurgery, McGill University	1986-1994	
Assistant Professor, School of Physical and Occupational Therapy, McGill University	1986-1991	

## **Membership of Editorial Boards**

2014-2019	Editor-in-chief, IEEE Transactions on Haptics
2010-2013	Associate editor-in-chief, IEEE Transactions on Haptics
2008-2011	Editor-in-chief, World Haptics Conference Editorial Board
2008-2010	Associate editor, IEEE Transactions on Haptics
2006-	Associate editor, Presence: Virtual and Augmented Reality
1992-2006	Presence, teleoperators and virtual environments
1999-	Haptics-e
1994-2001	Journal of Motor Behavior

### **Membership of Conference Committees**

2024	Awards Committee, IEEE Haptics Symposium
2022	Awards Committee, IEEE Haptics Symposium
2022	IEEE Fellows Nominating Committee
2021	Publications Chair, World Haptics Conference
2019	Chair, Awards Committee, World Haptics Conference
2017	Awards Committee, World Haptics Conference
2017	Conference Editorial Board, World Haptics Conference
2016	Advisory Board, Asia Haptics
2016	Awards Committee, Eurohaptics
2016	Awards Committee, IEEE Haptics Symposium
2014	International Advisory Committee, Eurohaptics
2013	Chair, Awards Committee, World Haptics Conference
2007-2012	International Program Committee, Eurohaptics
2007-2012	Program Committee, IEEE Computer Society Symposium on Haptic Interfaces for Virtual Environments and Teleoperator Systems
2006-2007	Program Co-Chair, IEEE World Haptics Conference
2005-2006	Program Committee, Eurohaptics Conference
2004-2005	Program Co-Chair, IEEE World Haptics Conferenc
2002-2004	Program Committee, IEEE Computer Society Symposium on Haptic Interfaces for Virtual Environments and Teleoperator Systems
2001-2002	Symposium co-organizer, IEEE Computer Society Symposium on Haptic Interfaces for Virtual Environments and Teleoperator Systems
1998-2001	Symposium co-organizer, ASME Haptic Interfaces for Virtual Environments and Teleoperator Systems

## **Membership of National Committees**

1998-2002	Committee on Space Biology and Medicine, Space Studies Board, National Research Council
2001-2002	Task Group on the International Space Station, National Research Council

### **Membership of Professional Societies**

American Association for the Advancement of Science, Member

#### **Recent Publications**

- Jodai, T., Terao, M., Jones, L.A., & Ho, H-N. (2023). Determination of the thermal-tactile simultaneity window for multisensory cutaneous displays. **IEEE World Haptics Conference**, 230-236.
- Reed, C.M., Tan, H.Z., & Jones, L.A. (2023). Haptic communication of language. **IEEE Transactions on Haptics, 16,** 134-153.
- Jones, L.A. & Ho, H-N. (2022). Incorporating thermal feedback in cutaneous displays: Reconciling temporal and spatial disparities. 11<sup>th</sup> International Workshop on Haptic and Audio Interaction Design, 48-58.
- Simonelli, C., Musolino, A., Rizzo, R., & Jones, L.A. (2021). Development of an innovative magnetorheological fluids-based haptic device excited by permanent magnets. **IEEE World Haptics Conference**, 61-66.
- Gaudeni, C., Meli, L., Jones, L.A. & Prattichizzo, D. (2019). Presenting surface features using a haptic ring: A psychophysical study on relocating vibrotactile feedback. **IEEE Transactions on Haptics**, **12**, 428-437.
- Kajimoto, H. & Jones, L.A. (2019). Wearable tactile display based on thermal expansion of nichrome wire. **IEEE Transactions on Haptics**, **12**, 257-268.
- Jones, L.A. & Singhal, A. (2019). Sensory interactions in cutaneous displays. **IEEE World Haptics Conference**, 545-550.
- Jones, L.A. (2018). Haptics. Cambridge, MA: MIT Press.
- Jones, L.A. & Singhal, A. (2018). Vibrotactile pattern identification in a multisensory display. In D. Prattichizzo, H. Shinoda, H.Z. Tan, E. Ruffaldi, & A. Frisoli (Eds.), LNCS10893, **Haptics:** Science, Technology, and Applications, 401-412.
- Jones, L.A. & Singhal, A. (2018). Perceptual dimensions of vibrotactile actuators. **IEEE Haptics Symposium**, 307-312
- Singhal, A. & Jones, L.A. (2018). Creating thermal icons A model-based approach. **ACM Transactions on Applied Perception**, **15**, Article 14 (22 pages).
- Rizzo, R., Musolino, A., & Jones, L.A. (2018). Shape recognition and localization using a magnetorheological-fluid haptic display. **IEEE Transactions on Haptics**, **11**, 317-321.
- Parker, M., Jones, L.A., Hunter, I., Taberner, A., Nash, M. & Nielsen, P. (2017). Multidirectional *in vivo* characterization of skin using Wiener nonlinear stochastic system identification techniques. **Journal of Biomechanical Engineering**, **139**, 011004-1-011004-11.

- Singhal, A. & Jones, L.A. (2017). Perceptual interactions in thermo-tactile displays. **IEEE World Haptics Conference**, 90-95.
- Singhal, A. & Jones, L.A. (2016). Space-time dependencies and thermal perception. In F. Bello, H. Kajimoto & Y. Visell (Eds.), LNCS 9774, **Haptics: Perception, Devices, Control and Applications**, 291-302.
- Singhal, A. & Jones, L.A. (2016). Space-time interactions and the perceived location of cold stimuli. **IEEE Haptics Symposium**, 92-97.
- Jones, L. A. (2016). Perspectives on the evolution of tactile, haptic and thermal displays. **Presence**, **25**, 247-252.
- Jones, L.A. (2016). Thermal touch. In T.J. Prescott et al. (Eds.), **Scholarpedia of Touch** (pp. 257-262). Atlantis Press.
- Hogan, N.C., Taberner, A.J., Jones, L.A. and Hunter, I.W. (2015). Needle-free delivery of macromolecules through the skin using controllable jet injectors. **Expert Opinion on Drug Delivery**, 12 (10).
- Rizzo, R., Musolino, A., Tucci, M., & Jones, L.A. (2015). Displaying shape haptically using MRF-based device. **IEEE Engineering in Medicine and Biology Conference**, 1164-1167.
- Singhal, A. & Jones, L.A. (2015). Dimensionality of thermal icons. **IEEE World Haptics** Conference, 469-474.
- Azadi, M. & Jones, L.A. (2014). Vibrotactile actuators: Effect of load and body site on performance. **Proceedings of the IEEE Haptics Symposium**, 351-356.
- Jones, L.A. & Smith, A.M. (2014). Tactile sensory system: Encoding from the periphery to the cortex. **WIREs Systems Biology and Medicine**, **6**, 279-287.
- Azadi, M. & Jones, L.A. (2014). Evaluating vibrotactile dimensions for the design of tactons. **IEEE Transactions on Haptics**, **7**, 14-23.
- Jones, L.A. & Tan, H.Z. (2013). Application of psychophysical techniques to haptic research. **IEEE Transactions on Haptics**, **6**, 268-284.
- Sofia, K.O. & Jones, L.A. (2013). Mechanical and psychophysical studies of surface wave propagation during vibrotactile stimulation. **IEEE Transactions on Haptics**, **6**, 320-329.
- Sandford, E., Chen, Y., Hunter, I, Hillebrand, G., & Jones, L. (2013). Capturing skin properties from dynamic mechanical analyses. **Skin Research and Technology**, **19**, e339-e348.

#### **Patents**

- Galiana, H.L., Hunter, I.W., Jones, L.A., & Tangorra, J. "Apparatus and method for measuring vestibular ocular reflex function." Patent number: 5,942,954. Issued: 8/24/99
- Galiana, H.L., Hunter, I.W., Jones, L.A., & Tangorra, J. "Drowsiness/Alertness Monitor" Patent number: 6,091,334. Issued: 7/18/00

Hunter, I.W., Chen, Y., Jones, L.A. & Hogan, N.C. "Identification techniques and device for testing the efficacy of beauty care products and cosmetics" Patent number: 9,265,461 Issued 2/23/2016