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## David R. Wallace

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MacVicar Faculty Fellow*

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### [Curriculum Vitae](#)

#### **Administrative Contact:**

Chevalley Duhart  
Room 3-435  
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#### **Education**

Carleton University, Canada B.I.D. 1986  
(Industrial Design)  
Carleton University, Canada B.Eng. 1989  
Massachusetts Institute of Technology M.Sc. 1991  
Massachusetts Institute of Technology Ph.D. 1994

#### **MIT Service:**

Appointments Held at MII  
Assistant Professor 1994 (Nov) 1999  
Associate Professor (without tenure) 1999 2002  
Associate Professor (with tenure) 2002 present

#### **Honors & Awards**

University Medal in Industrial Design, Carleton University, 1986  
Chancellor's Medal for outstanding academic achievement, 1989  
Carleton University  
1967 Scholar, National Science and Engineering, 1989  
Research Council, Canada  
Carl G. Sontheimer Prize for outstanding graduate research, MIT, 1991  
MIT Karl Chang Fellowship, 1992  
Volvo Environmental Research Award , 1995  
Klegerman Award for Environmental Excellence in Teaching, 1995  
Esther and Harold E. Edgerton Chair, MIT , 1996  
ASME International Design Engineering Division, Design for 1998  
Manufacturing Committee IBM Best Paper Award for  
"Integrating Environmental Impact Assessment into Product Design"  
Keenan Award for Innovation in Undergraduate Education, MIT, 2000  
Honorary Advisory Professor, LG Electronics, 2000  
Bose Award for Excellence in Teaching (School of Engineering), 2006



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### Journal Publications (past 5 years)

1. Abrahamson, Shaun; David R. Wallace, Nicola Senin, and Peter Sferro, "Integrated Design in a Service Marketplace", *Computer-aided Design* 32, 97-107, 2000.
2. Borland, Nicholas; and David R. Wallace, "Environmentally-conscious Product Design: a collaborative Internet-based modeling approach", *Journal of Industrial Ecology* 3, 2000.
3. Kraines, Steven; David R. Wallace, and Hiroshi Komiyama, "Applications of DOME in Chemical Engineering", *Journal of the Chemical Engineering Society of Japan*, 16, 2000.
4. Senin, Nicola; Roberto Groppetti, and David R. Wallace, "Concurrent Assembly Planning with Genetic Algorithms", *International Journal of Product Design and Process Development* 16, 2000.
5. Sousa, Ines; Julie L. Eisenhard, and David R. Wallace, "Approximate Life-Cycle Assessment of Product Concepts using Learning Systems", *Journal of Industrial Ecology*, 4, 2000.
6. Kraines, Steven; David R. Wallace, Yumiko Iwafune, Yoshikuni Yoshida, Toshiya Aramaki, Kazuhiko Kato, Keisuke Hanaki, Hisashi Ishitani, Tomonori Matsuo, Hiroshi Takahashi, Koichi Yamada, Kenji Yamaji, Yukio Yanagisawa, and Hiroshi Komiyama, "An Integrated Computational Infrastructure for a Virtual Tokyo: Concepts and Examples", *Journal of Industrial Ecology*, 5, 2001.
7. Senin, Nicola; Roberto Groppetti, David R. Wallace, and Simone P. Ercolani, "Distributed Objects to Encapsulate Machine Tools in Integrated Design and Manufacturing Environments", *International Journal of Agile Manufacturing*, 4, 2001.
8. Anderson, Johan; and David R. Wallace, "Pareto Optimization Using the Struggle Genetic Crowding Algorithm", *Engineering Optimization*, 34, 2002.
9. J. H. Park; K. K. Seo, David R. Wallace, and K. I. Lee, "Approximate Product Life Cycle Costing Method for the Conceptual Product Design", *Annals of the CIRP*, 51, 2002.
10. Kraines Steven; David R Wallace , Y Iwafune , Y Yoshida , T Aramaki , K Kato , K Hanaki , H Ishitani, T Matsuo, H Takahashi, K Yamada, K Yamaji, Y Yanagisawa, and H Komiyama, "An integrated computational infrastructure for a virtual Tokyo: concepts and examples", *Journal of Industrial Ecology*, 5(1), 2002.
11. Senin, Nicola; David R. Wallace, and Nicolas Borland, "Distributed Object-based Modeling in Design Simulation Marketplace", *ASME Journal of Mechanical Design*, 125, 2003.
12. Kraines Steven; and David R Wallace, "Sustainability technology evaluation in a regional context using distributed information technology", *Computers, Environment and Urban Systems*, 27 (2): 143-161, 2003.
13. Koyama, Michihisa; Steven Kraines, Kanako Tanaka, David R. Wallace, Koichi Yamada, and Hiroshi Komiyama, "Integrated Model Framework for the Evaluation of and SOFC/GT System as and Centralized Power Source", *International Journal of Energy Research*, 28, 2004.
14. Kraines, Steven; Hitoshi Shigeoka, David R. Wallace, and H. Komiyama, "Collaboration Platform and Application to Household Waste Plastic Processing", *International Journal of Technology Transfer and Commercialisation*, 3 (2), 2004.
15. Evans, Mark; David R. Wallace, David Cheshire, and Bahar Sener, "An evaluation of haptic modeling feedback during industrial design practice", *Design Studies*, 26 (5), 2005.

16. Kraines, Steven; Rafael Batres, Michihisa Koyama, David R. Wallace, and H. Komiyama, "Internet-based collaboration for integrated environmental assessment in industrial ecology", accepted for publication in *The Journal of Industrial Ecology*, 2005.
17. Kraines Steven; M. Koyama, C. Weber, T. Ikaga, T. Chikamoto, David R.