

Robert John Teather

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PERSONAL INFORMATION

- Birth place: St. Catharines, Ontario, Canada
- Citizenship: Canadian

RESEARCH INTERESTS

My research interests span several overlapping areas of interactive digital media, including:

- **Human-Computer Interaction:**
 - Novel input device evaluation, mobile device interaction, large/tiled displays, experimental methodology
- **Virtual Reality and 3D User Interfaces:**
 - Hybrid 2D/3D selection/manipulation interfaces, immersive VR systems, 3D input devices and displays
- **Computer Game User Interfaces:**
 - Game control and input devices, VR games, scale effects in game UIs, game information visualization

EDUCATION

- **Ph.D.**, Computer Science, York University, Toronto, Ontario, 2008 – 2013
 - *Supervisor:* Dr. Wolfgang Stuerzlinger
- **M.Sc.**, Computer Science, York University, Toronto, Ontario, 2005 – 2008
 - *Supervisor:* Dr. Wolfgang Stuerzlinger
- **Ontario College Diploma**, Computer Programming, Niagara College, Welland, Ontario, 2004 – 2005
- **B.Sc. (Hons)**, Computer Science, Brock University, St. Catharines, Ontario, 1999 – 2003
 - Graduated with first-class standing, concentration in Software Engineering

PROFESSIONAL POSITIONS

- **Assistant Professor**, School of Information Technology, Carleton University, 2016 – present
 - *Duties:* Teaching courses and conducting research in interactive multimedia, HCI, virtual reality, and games
 - *Parental leave:* January – June 2018
- **Adjunct Professor**, Dept. of Computer Science, Brock University, 2014 – present
- **Postdoctoral Fellow**, Dept. of Computing and Software, McMaster University, 2013 – 2015
 - *Duties:* conducting experimental research, supervising students, purchasing equipment
 - *Supervisor:* Dr. Jacques Carette
- **Research Assistant**, Interactive Systems Research Group, York University, 2005 – 2013
 - *Duties:* Design and development of 3D user interfaces, experimental evaluation of 3D user interfaces
 - *Supervisor:* Dr. Wolfgang Stuerzlinger
- **Research Assistant**, Augmented Reality Lab, Brock University, 2007 – 2008
 - *Duties:* Lab manager and research assistant for augmented reality project
 - *Supervisor:* Dr. John Bonnett
- **Research Assistant/Programmer**, Centre for Advanced Visualization, Niagara College, 2003 – 2007
 - *Duties:* Real-time graphics programming using Microsoft Direct3D
 - *Supervisor:* Dr. Mike Duncan

RESEARCH FUNDING

- **Engage**, PI, Natural Sciences and Engineering Research Council of Canada, 2017-2018, \$25,000
- **Small Infrastructure Fund**, co-PI, Ontario Research Fund, 2017 – 2022, \$107,000
- **John Evans Leaders Fund**, co-PI, Canada Foundation for Innovation, 2017 – 2022, \$107,000
- **Discovery Grant**, PI, Natural Sciences and Engineering Research Council of Canada, 2016 – 2021, \$22,000/year
- **Susan Mann Dissertation Scholarship**, York University, 2012 – 2013, \$21,000/year
- **Ontario Graduate Scholarship (OGS)**, 2011 – 2012, \$15,000/year
- **PGS D3**, Natural Sciences and Engineering Research Council of Canada, 2008 – 2011, \$21,000/year

AWARDS AND HONOURS

- **Governor General's Gold Medal (nomination)**, York University, nominated March 2014
- **Bill Buxton Dissertation Award (nomination)**, Canadian Human-Computer Communication Society, nominated February 2014
- **Clarke Thomson Award for Excellence in Sessional Teaching (nomination)**, Brock U, nominated March 2010, 2011.
- **Joseph Liu Thesis Prize, 2008**. York University, Department of Computer Science and Engineering, awarded June 2009.
- **Master's Thesis Prize, 2008 (nomination)**. York University, Faculty of Graduate Studies, nominated January 2009.
- **Applied Research Fellowship**. Niagara College of Applied Arts and Technology, awarded 2006.
- **Dean's Honour List**: Brock University, 2002 and 2003.
- **Returning Student Scholarships**: Brock University, awarded 2002 and 2003.
- **CUPE Local 2220 Award**, Brock University, awarded March 2001
- **Scholar's Award**: Brock University, awarded September 1999.

TEACHING EXPERIENCE

I have taught over 20 unique courses across approximately 30 offerings at seven institutions. These are listed by institution, course, then offering/year. Most recent offerings are listed first. Graduate courses are indicated with an asterisk by their title.

Carleton University, School of Information Technology

- Human Computer Interaction & Design – IMD 3004: Fall 2017 (38 students)
- Advanced Topics in Digital Media (Virtual Reality) – IMD 4005: Winter 2016 (30 students)
- Entertainment Technologies* – ITEC 5200: Winter 2017 (10 students)
- Research Methods in HCI (Directed Study)* – ITEC 5900: Fall 2016 (6 students)
- Design Studio 4 (Game Design) – IMD 4902: Fall 2016 (42 students)

York University, Department of Electrical Engineering & Computer Science

- Introduction to Virtual Reality - EECS 4471: Winter 2015 (10 students)
- User Interfaces - CSE 3461: Winter 2007 (40 students)

Brock University, Department of Computer Science

- Human-Computer Interaction - COSC 3P94: Winter 2015 (30 students)
- Introduction to Media Computation - APCO 1P00: Spring 2013 (30 students)
- Fluency with Technology - APCO 1P01: Spring 2013 (50 students)
- Operating Systems - COSC 2P13: Spring 2012 (12 students), Spring 2011 (15 students), Winter 2011 (35 students), Spring 2010 (12 students), Winter 2010 (25 students), Spring 2009 (5 students), Spring 2007 (20 students)
- Procedural Programming - COSC 2P91: Winter 2012 (35 students), Winter 2008 (25 students), and Winter 2007 (30 students)
- Applied Programming - APCO 1P93: Fall 2010 (45 students), and Fall 2006 (25 students)

McMaster University, Department of Computing and Software

- Interactive Digital Culture for Software Engineers - ENG 4GA3: Fall 2014 (20 students)
- Human-Computer Interaction - COMP SCI 4HC3/6HC3: Fall 2014 (100 students), Fall 2013 (140 students)
- Computer Graphics - COMP SCI 3GC3: Fall 2014 (90 students), Fall 2013 (70 students), Fall 2012 (55 students), Fall 2011 (65 students), and Fall 2010 (75 students)

Ryerson University, Department of Computer Science

- Digital Computation and Programming - CPS 125: Winter 2013 (100 students)

Humber College, School of Media Studies and Information Technology

- Computer Graphics I - GAME 540: Fall 2010 (35 students), and Fall 2009 (30 students)

Niagara College, Department of Computer and Electronics Engineering

- Enterprise Computing I - CTEC 1430: Winter 2008 (10 students)
- Computer Programming II - CTEC 1435: Winter 2008 (10 students)
- C Programming - CTEC 1732: Winter 2008 (20 students)

INVITED GUEST LECTURES

- Human-Computer Interaction, COSC 3P94, Computer Science, Brock University, St. Catharines, ON, Winter 2016
- Modeling for Virtual Reality, CS 3GB3, Computing & Software, McMaster University, Hamilton, ON, Winter 2014
- Human-Computer Interaction, COSC 3P94, Computer Science, Brock University, St. Catharines, ON, Winter 2013
- C++ Programming, COMP 2404, School of Computer Science, Carleton University, Ottawa, ON, Winter 2012
- Virtual Reality, CSE 4471, Computer Science & Engineering, York University, Toronto, ON, Winter 2012
- Animation for Games, CSE 4491, Computer Science & Engineering, York University, Toronto, ON, Winter 2012

STUDENT SUPERVISION*Current Graduate Students*

- E. Soto, *Carleton University*, MIT (digital media), 2017-present
- J. Pollack, *Carleton University*, MAsc (HCI), 2017-present
- O. Bani-Taha, *Carleton University*, PhD (digital media), co-supervised with F. Taylor, 2017-present
- Z. Atif, *Carleton University*, MAsc (HCI), 2017-present
- A. Scavarelli, *Carleton University*, PhD (digital media), co-supervised with A. Arya, 2016-present
- A. Ramcharitar, *Carleton University*, MCS (HCI), 2016-present
- S. Luo, *Carleton University*, MCS (HCI), 2016-present
- Y. Qian, *Carleton University*, MCS (HCI), 2016-present
- Y. Farmani, *Carleton University*, MCS (HCI), 2016-present

Past Grad Students (theses, course projects, etc.)

- M. Peacocke, *McMaster University*, Grad project co-supervisor, 2014-2015 – full paper published in IEEE GEM 2015
- G. Smith, *McMaster University*: Grad project co-supervisor, 2014-2015 – full paper published in IEEE GEM 2015
- N. Bogdan, *York University*: Supervised grad course (CSE 6337) project, Fall 2012
- S. Laldin, *York University*: Supervised grad course (CSE 6337) project, Fall 2012 – published poster in SUI 2013
- B. Bajer, *York University*: Supervised grad course (CSE 6337) project, Fall 2012 – published poster in SUI 2013

Past Undergrad Students (summer RAs, interns, capstone projects, etc.)

- Eric Aylward, *Carleton University*, Directed study supervisor, Winter 2017
- Tomiwa Aina, Eric Aylward, Mark Brouwer, Akito Roberge, Patrick Stevens, *Carleton University*, Senior project advisor, Fall/Winter 2016-2017
- Rebecca Bair, Brad Campbell, Claudia Gunn-Harcus, Chris Heyerdahl, Erica Lekawski, *Carleton University*, Senior project advisor, Fall/Winter 2016-2017
- K. Subramaniam, M. Errygers, A. Sheikh, *McMaster University*, Undergrad capstone supervisor, Fall/Winter 2014-2015
- K. Tan, M. Li, H. Cao, *McMaster University*, Undergrad capstone supervisor, Fall/Winter 2014-2015
- E. Soto, *McMaster University*: Undergrad internship supervisor, Summer 2014
- G. Browning, *McMaster University*: Undergrad research assistant supervisor, Summer 2014
- U. Khan, A. Samtiani, C. Fuller, O. Agia, *McMaster University*: Undergrad capstone supervisor, Fall/Winter 2013-2014

RESEARCH ACTIVITIES / PUBLICATIONS

At present, my work has been collectively cited around 560 times (via Google Scholar). My h-index is currently 12. I presented all conference papers and posters listed below where I am the first author. Papers with an asterisk by my name are those that I presented, despite not being first author. Papers in submission (but not yet accepted) and those in a late stage of preparation are also included.

Theses

- “Evaluating 3D Pointing Techniques”, PhD Dissertation, York University, 2013
 - Nominated for Bill Buxton Dissertation Award, and Governor General’s Gold Medal
- “Comparing 2D and 3D Direct Manipulation Interfaces”, MSc Thesis, York University, 2008.
 - Awarded Joseph Liu Thesis Prize 2008 by the Graduate Programme in Computer Science, York University.
 - Nominated by the Graduate Programme in Computer Science for York University Best Master’s Thesis Prize, 2008.

Edited Books, Proceedings, etc.

- **Robert J. Teather**, Maud Marchal, Takuji Narumi. (2018), “Proceedings of the IEEE Conference on Virtual Reality and 3D User Interfaces – VR 2018”, to appear, March 2018.
- Kyle Johnsen, **Robert J. Teather**, Christian Sandor. (2017), “Proceedings of the 5th ACM Symposium on Spatial User Interaction – SUI ‘17”, ACM, ISBN: 978-1-4503-5486-8, October 2017.
- Maud Marchal, **Robert J. Teather**, Bruce Thomas. (2017), “Proceedings of the IEEE Symposium on 3D User Interfaces – 3DUI 2017”, IEEE, ISBN: 978-1-5090-6716-9, March 2017.
- **Robert J. Teather**, Evan Suma, Kyle Johnsen. (2016), “Proceedings of the 4th ACM Symposium on Spatial User Interaction – SUI ‘16”, ACM, ISBN: 978-1-4503-4068-7, October 2016.

Journal Articles

1. Margaree Peacocke, **Robert J. Teather**, Jacques Carette, I. Scott MacKenzie, Victoria McArthur. (2018). “An empirical comparison of first-person shooter information displays: HUDs, diegetic displays, and spatial representations”, *Entertainment Computing*, in press.
2. **Robert J. Teather**, Andrew Roth, I. Scott MacKenzie. (2017), “Touch-tilt synergy: input controls for ‘dual-analog’ style mobile games”, *Entertainment Computing*, 21, pp. 33-43, April 2017.
3. Nicholas Katzakis, **Robert J. Teather**, Kiyoshi Kiyokawa, Haruo Takemura. (2015). “INSPECT: Extending plane-casting for 6-DOF control”, *Human-Centric Computing and Information Sciences*, 5 (22), ISSN: 2192-1962, pp. 1-22, July 2015.
4. Victoria McArthur, **Robert J. Teather**, Wolfgang Stuerzlinger. (2010). “Comparing 3D content creation interfaces in two virtual worlds: World of Warcraft and Second Life”, *Journal of Gaming & Virtual Worlds*, 2 (3), ISSN 1757-191X, pp. 239-258, December 2010.

Papers in Refereed Conference Proceedings

5. Yasin Farmani, **Robert J. Teather**. (2018) Viewpoint snapping to reduce cybersickness in virtual reality, accepted to *Graphics Interface 2018*, to appear, May 2018.
6. Adrian Ramcharitar, **Robert J. Teather**. (2018) EZCursorVR: 2D selection with virtual reality head-mounted displays, accepted to *Graphics Interface 2018*, to appear, May 2018.
7. John McClelland, **Robert J. Teather**, Audrey Girouard. (2017) HaptoBend: Shape-changing passive haptic feedback in virtual reality, *ACM Symposium on Spatial User Interaction - SUI 2017*, ISBN: 978-1-4503-5486-8, pp. 82-90, October 2017. Acceptance Rate: 35%. *Note: The demo of HaptoBend was awarded the best demo award for SUI ‘17.*
8. YuanYuan Qian, **Robert J. Teather**. (2017) The eyes don’t have it: An empirical comparison of head-based and eye-based selection in virtual reality, *ACM Symposium on Spatial User Interaction - SUI 2017*, ISBN: 978-1-4503-5486-8, pp. 91-98, October 2017. Acceptance Rate: 35%. *Note: As one of the top papers of SUI ‘17, this paper was selected for additional presentation in the ISS 2017 “Highlights of SUI” track.*

9. Thomas S. Young, **Robert J. Teather**, I. Scott MacKenzie. (2017). "An arm-mounted inertial controller for 6DOF input: design and evaluation", *IEEE Symposium on 3D User Interfaces – 3DUI 2017*, ISBN: 978-1-5090-6716-9, pp. 26-35, March 2017. *Acceptance Rate: 32%*.
10. Victoria McArthur, **Robert J. Teather**. (2015). "Serious mods: A case for modding in serious game pedagogy", *IEEE Consumer Electronics Society Games, Entertainment, and Media Conference – GEM 2015*, ISBN: 978-1-4673-7452-1, pp. 222-225, October 2015.
11. Geneva Smith, **Robert J. Teather***, Jordan Lass, Jacques Carette. (2015). "Effects of interior bezel size and configuration on gaming performance with large tiled displays", *IEEE Consumer Electronics Society Games, Entertainment, and Media Conference – GEM 2015*, ISBN: 978-1-4673-7452-1, pp. 130-137, October 2015.
12. Margaree Peacocke, **Robert J. Teather***, Jacques Carette, I. Scott MacKenzie. (2015). "Evaluating the effectiveness of HUDs and diegetic ammo displays in first-person shooter games", *IEEE Consumer Electronics Society Games, Entertainment, and Media Conference – GEM 2015*, ISBN: 978-1-4673-7452-1, pp. 138-145, October 2015.
13. **Robert J. Teather**, Jacques Carette, Manivanna Thevathasan. (2015). "Uniform vs. non-uniform scaling of shooter games on large displays", *IEEE Consumer Electronics Society Games, Entertainment, and Media Conference – GEM 2015*, ISBN: 978-1-4673-7452-1, pp. 257-264, October 2015.
14. **Robert J. Teather**, Wolfgang Stuerzlinger. (2015). "Factors affecting mouse-based 3D selection in desktop VR systems", *ACM Symposium on Spatial User Interaction – SUI 2015*, ISBN: 978-1-4503-3703-8, pp. 10-19, August 2015. *Acceptance Rate: 35%*.
15. Victoria McArthur, **Robert J. Teather**, Jennifer Jenson. (2015). "The avatar affordances framework: Mapping affordances and design trends in character creation interfaces", *ACM Symposium on Computer-Human Interaction in Play – CHI Play 2015*, ISBN: 978-1-4503-3466-2, pp. 231-240, October 2015. *Acceptance rate: 27%*.
16. **Robert J. Teather**, I. Scott MacKenzie. (2014). "Comparing order of control for tilt and touch games", *ACM Interactive Entertainment Conference – IE 2014*, ISBN: 978-1-4503-2790-9, pp. 1-10, December 2014.
17. **Robert J. Teather**, Victoria McArthur (2014). "Teaching user interface evaluation methods with games", *IEEE Consumer Electronics Society Games, Entertainment, and Media Conference – GEM 2014*, ISBN 978-1-4799-7546-7, pp. 204-207, October 2014. *Acceptance rate: 45%*.
18. **Robert J. Teather**, Wolfgang Stuerzlinger (2014). "Visual aids in 3D point selection experiments", *ACM Symposium on Spatial User Interaction – SUI 2014*, ISBN 978-1-4503-2820-3, pp. 127-136, October 2014. *Acceptance Rate: 29%*.
19. **Robert J. Teather**, I. Scott MacKenzie. (2014). "Position vs. velocity control for tilt-based interaction", *ACM Graphics Interface 2014*, ISBN 978-1-4822-6003-8, pp. 51-58, May 2014. *Acceptance Rate: 37%*.
20. Steven Castellucci, **Robert J. Teather***, Andriy Pavlovych. (2013). "Novel metrics for 3D remote pointing", *ACM Symposium on Spatial User Interaction – SUI 2013*, ISBN 978-1-4503-2141-9, pp. 17-20, July 2013. *Acceptance Rate: 38%*.
21. **Robert J. Teather**, I. Scott MacKenzie. (2013). "Effects of user distraction due to secondary calling and texting tasks", *International Conference on Multimedia and Human Computer Interaction – MHCI 2013*, pp. 115.1 – 115.8, July 2013.
22. **Robert J. Teather**, Wolfgang Stuerzlinger. (2013). "Pointing at 3D target projections with one-eyed and stereo cursors", *ACM Conference on Human Factors in Computing Systems – CHI 2013*, ISBN 978-1-4503-1899-0, pp. 159-168, April 2013. *Acceptance Rate: 20%, ~2000 submissions.*
23. I. Scott MacKenzie, **Robert J. Teather**. (2012). "Fitts Tilt: The application of Fitts' law to tilt-based interaction", *Nordic Conference on Human-Computer Interaction – ACM NordiCHI 2012*, ISBN 978-1-4503-1482-4, pp. 568-577, October 2012. *Acceptance Rate: 24%*.
24. **Robert J. Teather**, Wolfgang Stuerzlinger. (2011). "Pointing at 3D targets in a stereo head-tracked virtual environment", *IEEE Symposium on 3D User Interfaces – 3DUI 2011*, ISBN 978-1-4577-0062-0, pp. 87-94, March 2011. *Acceptance Rate: 36%*
25. Loutfouz Zaman, Daniel Natapov, **Robert J. Teather**. (2010). "Touchscreens vs. traditional controllers in handheld gaming", *ACM International Academic Conference on the Future of Game Design and Technology – FuturePlay 2010*, ISBN 978-160558218-4, pp. 207-214, May 2010.

26. **Robert J. Teather**, Robert S. Allison, Wolfgang Stuerzlinger. (2009). "Evaluating visual/motor co-location in fish-tank virtual reality", *IEEE Toronto International Conference on Science and Technology for Humanity – Symposium on Human Factors and Ergonomics – TIC-STH 2009*, ISBN 978-1-4244-3878-5, pp. 624-629, September 2009.
27. **Robert J. Teather**, Andriy Pavlovych, Wolfgang Stuerzlinger, I. Scott Mackenzie. (2009). "Effects of tracking technology, latency, and spatial jitter on object movement", *IEEE Symposium on 3D User Interfaces – 3DUI 2009*, ISBN 978-142443965-2, pp. 43-50, March 2009. *Acceptance Rate: 25%*
28. **Robert J. Teather**, Wolfgang Stuerzlinger. (2008). "Exaggerated head motions for game viewpoint control", *ACM International Academic Conference on the Future of Game Design and Technology – FuturePlay 2008*, ISBN 978-160558218-4, pp. 240-243, November 2008.
29. **Robert J. Teather**, Wolfgang Stuerzlinger. (2008). "Assessing the effects of orientation and device on (constrained) 3D movement techniques", *IEEE Symposium on 3D User Interfaces – 3DUI 2008*, ISBN 978-142442047-6, pp. 43-50, March 2008. *Acceptance Rate: 31%*
30. **Robert J. Teather**, Wolfgang Stuerzlinger. (2007). "Guidelines for 3D positioning techniques", *ACM International Academic Conference on the Future of Game Design and Technology – FuturePlay 2007*, ISBN 978-159593943-2, pp. 61-68, Nov 2007.

Juried Contributions (Workshop Papers, Invited Papers, Extended Abstracts with a peer review process)

31. Adrian Ramcharitar, **Robert J. Teather**. (2017). "A Fitts' law evaluation of video game controllers: thumbstick, touchpad and gyrosensor", *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems – CHI EA 2017*, ISBN: 978-1-4503-4656-6, pp. 2860-2866, May 2017. *Acceptance Rate: 38%*.
32. Anthony Scavarelli, **Robert J. Teather**. (2017). "VR Collide! Comparing collision-avoidance methods between co-located virtual reality users", *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems – CHI EA 2017*, ISBN: 978-1-4503-4656-6, pp. 2915-2921, May 2017. *Acceptance Rate: 38%*.
33. Wolfgang Stuerzlinger, **Robert J. Teather**. (2014). "Considerations for targets in 3D pointing experiments", Invited paper in the *ACM HCI Korea Invited Paper for SIGCHI Premier Session*, ISBN 978-896848752-1, 162-168, December 2014.
34. Alexander Zaranek, Bryan Ramoul, Hua Fei Yu, Yiyu Yao, **Robert J. Teather**. (2014). "Performance of modern game input devices in first-person shooter target acquisition", *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems – CHI EA 2014*, ISBN 978-1-4503-2474-8, pp. 1495-1500, April 2014. *Acceptance Rate: 31%*.
35. Graeme Browning, **Robert J. Teather**. (2014). "Screen Scaling: Effects of screen scale on moving target selection", *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems – CHI EA 2014*, ISBN 978-1-4503-2474-8, pp. 2053-2058, April 2014. *Acceptance Rate: 31%*.
36. Benjamin F. Janzen, **Robert J. Teather**. (2014). "Is 60FPS better than 30? The impact of frame rate and latency on moving target selection", *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems – CHI EA 2014*, ISBN 978-1-4503-2474-8, pp. 1477-1482, April 2014. *Acceptance Rate: 31%*.
37. **Robert J. Teather**, Wolfgang Stuerzlinger, Andriy Pavlovych. (2014). "Fishtank Fitts: A desktop VR testbed for evaluating 3D pointing techniques", *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems – CHI EA 2014*, ISBN 978-1-4503-2474-8, pp. 519-522, April 2014. *Acceptance Rate: 31%*.
38. **Robert J. Teather**, Wolfgang Stuerzlinger. (2012). "Cursors for 3D pointing", Presentation at the *ACM CHI 2012 Workshop: The 3rd Dimension of CHI (3DCHI)*, May 2012.
39. **Robert J. Teather**, Daniel Natapov, Michael Jenkin. (2010). "Evaluating haptic feedback in virtual environments using ISO 9241-9", *Poster at the IEEE Virtual Reality Conference – VR 2010*, ISBN 978-142446258-2, pp. 307-308, March 2010.
40. **Robert J. Teather**, Andriy Pavlovych, Wolfgang Stuerzlinger. (2009). "Effects of latency and spatial jitter on 2D and 3D pointing", *Poster at the IEEE Virtual Reality Conference – VR 2009*, ISBN 978-142443943-0, 229-230, March 2009.
41. **Robert J. Teather**, Wolfgang Stuerzlinger. (2008). "Assessing the effects of orientation and device on 3D positioning", *Poster at the IEEE Virtual Reality Conference – VR 2008*, ISBN 978-142441971-5, pp. 293-294, March 2008.

Other Lightly Reviewed Contributions (Extended Abstracts, Posters, Demonstrations, etc.)

42. Yasin Farmani, Siqi Luo, **Robert J. Teather**. (2018) A longitudinal pilot study of presence in immersive VR, *Poster to appear in the 23rd Annual CyberPsychology, CyberTherapy & Social Networking Conference – CYPSTY23*, to appear June 2018.
43. Yasin Farmani, **Robert J. Teather**. (2017) Player performance with different input devices in virtual reality first-person shooter games, *Poster at the ACM Symposium on Spatial User Interaction - SUI 2017*, ISBN: 978-1-4503-5486-8, pp. 165, October 2017.
44. John McClelland, **Robert J. Teather**, Audrey Girouard. (2017) Haptic feedback with HaptoBend: Utilizing shape-change to enhance virtual reality, *Demonstration at the ACM Symposium on Spatial User Interaction - SUI 2017*, ISBN: 978-1-4503-5486-8, pp. 165, October 2017. *Note: Received the Best Demo Award for SUI '17.*
45. YuanYuan Qian, **Robert J. Teather**. (2017) Head vs. eye-based selection in virtual reality, *Demonstration at the ACM Symposium on Spatial User Interaction - SUI 2017*, ISBN: 978-1-4503-5486-8, pp. 151, October 2017.
46. Adrian Ramcharitar, **Robert J. Teather**. (2017) A head coupled cursor for 2D selection in virtual reality, *Poster at the ACM Symposium on Spatial User Interaction - SUI 2017*, ISBN: 978-1-4503-5486-8, pp. 162, October 2017.
47. **Robert J. Teather**, Wolfgang Stuerzlinger. (2016). “Spatial interaction in virtual/augmented reality and games – SIVARG”, workshop proposal for Interactive Surfaces and Spaces – ISS 2016, November 2016.
48. Graeme Browning, **Robert J. Teather***, Jacques Carette. (2015). “Differences in perspective and software scaling”, Poster at the *ACM Symposium on Spatial User Interaction – SUI 2015*, ISBN: 978-1-4503-3703-8, pp. 128, August 2015.
49. Geneva Smith, **Robert J. Teather***, Jordan Lass, Jacques Carette. (2015). “Effects of bezel size in large tiled display gaming”, Poster at the *ACM Symposium on Spatial User Interaction – SUI 2015*, ISBN: 978-1-4503-3703-8, pp. 129, August 2015.
50. **Robert J. Teather**, Andrew Roth. (2015). “Performance of tilt and touch in mobile games”, Poster at *Graphics Interface 2015*, 2 pages, June 2015.
51. Margaree Peacocke, **Robert J. Teather**, Jacques Carette. (2015). “Performance of HUDs and diegetic displays in FPS games”, Poster at *Graphics Interface 2015*, 2 pages, June 2015.
52. Nicholas Katzakis, **Robert J. Teather**, Kiyoshi Kiyokawa, Haruo Takemura. (2015). “INSPECT: Extending plane-casting for 6-DOF control”, Poster at the *IEEE Symposium on 3D User Interfaces – 3DUI 2015*, ISBN 978-1-4673-6886-5, pp. 165-166, March 2015.
53. **Robert J. Teather**, Manivanna Thevathasan, Jacques Carette. (2014). “Scale effects in ‘bullet hell’ games”, Poster at the *IEEE Consumer Electronics Society Games, Entertainment, and Media Conference – GEM 2014*, ISBN 978-1-4799-7546-7, pp. 303-304, October 2014.
54. Margaree Peacocke, **Robert J. Teather**, Jacques Carette. (2014). “Diegetic vs. non-diegetic game displays”, Poster at the *IEEE Consumer Electronics Society Games, Entertainment, and Media Conference – GEM 2014*, ISBN 978-1-4799-7546-7, pp. 305-306, October 2014.
55. Vamsi K. Adihikarla, Paweł Woźniak, **Robert J. Teather***. (2014). “HoloLeap: Towards efficient 3D object manipulation on light field displays”, Poster at the *ACM Symposium on Spatial User Interaction – SUI 2014*, ISBN 978-1-4503-2820-3, pp. 158, October 2014.
56. **Robert J. Teather**, Wolfgang Stuerzlinger (2014). “Depth cues and mouse-based 3D target selection”, Poster at the *ACM Symposium on Spatial User Interaction – SUI 2014*, ISBN 978-1-4503-2820-3, pp. 156, October 2014.
57. Bartosz Bajer, **Robert J. Teather***, Wolfgang Stuerzlinger. (2013). “Effects of stereoscopy and head tracking on 3D selection tasks”, Poster at the *ACM Symposium on Spatial User Interaction – SUI 2013*, ISBN 978-1-4503-2141-9, pp. 77, July 2013.
58. Sidrah Laldin, **Robert J. Teather***, Wolfgang Stuerzlinger. (2013). “Up- and downwards motions in 3D pointing”, Poster at the *ACM Symposium on Spatial User Interaction – SUI 2013*, ISBN 978-1-4503-2141-9, pp. 89, July 2013.

59. **Robert J. Teather**, Wolfgang Stuerzlinger. (2012). “A system for evaluating 3D pointing techniques”, Demonstration at the *ACM Symposium on Virtual Reality Software and Technology – VRST 2012*, ISBN 978-145031569-5 pp. 209, December 2012.
60. **Robert J. Teather**, Wolfgang Stuerzlinger. (2012). “Investigating one-eyed and stereo cursors for 3D pointing tasks”, Poster at the *IEEE Symposium on 3D User Interfaces – 3DUI 2012*, pp. 167-168, March 2012.
61. Loutfouz Zaman, Dmitri Shuralyov, **Robert J. Teather***, Wolfgang Stuerzlinger. (2012). “Evaluation of a 3DUI using game console hardware”, Poster at the *IEEE Symposium on 3D User Interfaces – 3DUI 2012*, pp. 173-174, March 2012.
62. **Robert J. Teather**, Wolfgang Stuerzlinger. (2010). “Target pointing in 3D user interfaces”, *Poster at Graphics Interface*, June 2010.
63. **Robert J. Teather**, Wolfgang Stuerzlinger. (2008). “Exaggerating head-coupled camera motions in fish tank VR”, *Poster at Graphics Interface*, May 2008.
64. **Robert J. Teather**, Wolfgang Stuerzlinger. (2007). “An evaluation of 3D positioning techniques for scene assembly”, *Poster at IEEE Symposium on 3D User Interfaces – 3DUI 2007*, March 2007.

Other Non-Refereed Contributions (Presentations, Posters, Organized Conference Courses etc.)

65. **Robert J. Teather**, Wolfgang Stuerzlinger. (2013). “Pointing at perspective scaled 3D targets”, *Poster for the GRAND-NCE Annual Meeting*, May 2013.
66. **Robert J. Teather**, Wolfgang Stuerzlinger. (2012). “Investigating one-eyed and stereo cursors for 3D pointing tasks”, *Poster for York University Department of Computer Science & Engineering Graduate Student Poster Day*, March 2012.
67. **Robert J. Teather**, Wolfgang Stuerzlinger. (2010). “Evaluating reaching and tapping motions in 3D interfaces”, *Poster for York University Department of Computer Science & Engineering Graduate Student Poster Day*, March 2010
68. **Robert J. Teather**. (2009). “Evaluating human pointing performance in 3D virtual environments”, *Presentation at the Annual Canadian Action and Perception Network Retreat*, October 2009.
69. **Robert J. Teather**, Robert S. Allison, Wolfgang Stuerzlinger. (2009). “Evaluating visual/motor coupling in fish tank virtual reality”, *Poster at CVR 2009 - Centre for Vision Research International Conference on Vision in 3D Environments*, June 2009.
70. **Robert J. Teather**, Wolfgang Stuerzlinger. (2007). “The challenge of 3D interaction: Guidelines for intuitive 3D manipulation techniques”, *Presentation at Interacting with Immersive Worlds*, June 2007.

INVITED TALKS, PRESENTATIONS, ETC.

Note: This section excludes conference presentations for the papers listed above

- February 2018, “Spatial User Interfaces: Towards Usable VR and Understanding Game Interactions”, *York University, School of Information Technology*, Toronto, Ontario (Host: Sotirios Liaskos)
- April 2016, “Game User Interfaces: Empirical Studies of Scale, Input Methods, & Information Display”, *York University, Dept. of Electrical Engineering & Computer Science*, Toronto, Ontario (Host: Scott MacKenzie)
- March 2016, “Game User Interfaces: Empirical Studies of Scale, Input Methods, & Information Display”, *Brock University, Dept. of Computer Science*, St. Catharines, Ontario (Host: Michael Winter)
- March 2015, “3D User Interfaces: Design and Evaluation”, *University of Toronto, Dept. of Computer Science*, Toronto, Ontario (Host: Olivier St.-Cyr)
- November 2014, “3D User Interfaces: Design and Evaluation”, *University of Toronto, Dept. of Computer Science*, Toronto, Ontario (Host: Olivier St.-Cyr)
- October 2014, “Target Selection in Spatial User Interfaces”, *Simon Fraser University, School of Interactive Arts and Technology*, Burnaby, British Columbia (Host: Wolfgang Stuerzlinger)
- July 2014, “Games and Visual Scale”, *University of Waterloo Games Institute – IMMERSe Network Postdoc Presentation Series*, Waterloo, Ontario (Host: Neil Randall)
- March 2014, “Target Selection in Spatial User Interfaces”, *Imimtek Corporation, Speaker Series*, Sunnyvale, California (Host: Thomas Lennig)
- September 2013, “Evaluating 3D Pointing Techniques”, *Brock University, Department of Computer Science*, St. Catharines, Ontario (Host: Dr. Brian Ross)
- January 2012, “Evaluating 3D Direct Manipulation Interfaces”, *Queen’s University, Human-Media Lab*, Kingston, Ontario (Host: Dr. Roel Versteeg)

- May 2011, “Evaluating 3D Direct Manipulation Interfaces”, *University of Ontario, Institute of Technology, Department of Game Development and Entrepreneurship*, Oshawa, Ontario (Host: Dr. Andrew Hogue)
- April 2011, “Evaluating 3D Direct Manipulation Interfaces”, *Algoma University, Department of Computer Science*, Sault Ste. Marie, Ontario (Host: Dr. Simon Xu)
- October 2010, “Factors influencing 3D pointing task performance”, *Annual NSERC CREATE meeting 2010*, Toronto, Ontario, (Host: Dr. Denise Henriques)
- September 2010, “Comparing 2D and 3D motions in virtual environments”, *York University, Centre for Vision Research*, Toronto, Ontario (Host: Dr. Frances Wilkinson)

SCIENTIFIC PROGRAM COMMITTEES, REVIEWING, VOLUNTEERING, AND MEMBERSHIPS

Organizing Committee Positions

- Conference Paper Program Chair, IEEE Conference on Virtual Reality & 3D User Interfaces – VR 2018
- Technical Program Chair, IEEE Symposium on 3D User Interfaces – 3DUI 2017
- Technical Program Chair, ACM Symposium on Spatial User Interaction – SUI 2016, 2017
- Posters Co-Chair, IEEE Virtual Reality Conference – VR 2017
- Workshop organizer, ACM ISS 2016 workshop: Spatial Interaction in Virtual/Augmented Reality and Games (SIVARG)
- Publication Chair, IEEE Virtual Reality Conference – VR 2016
- Poster and Demo Co-Chair, ACM Symposium on Spatial User Interaction – SUI 2015
- Support Co-Chair, IEEE Virtual Reality Conference – VR 2015
- Posters Co-Chair, IEEE Symposium on 3D User Interfaces – 3DUI 2015
- Posters Co-Chair, ACM Symposium on Spatial User Interaction – SUI 2013 and 2014
- 3DUI Contest Co-Chair, IEEE Symposium on 3D User Interfaces – 3DUI 2012, 2013, and 2014
- Proceedings Co-Chair, ACM Conference on Human Factors in Computing Systems – CHI 2013
- Research Notes (Student Research Track) Co-Chair, GRAND-NCE 2013 annual meeting 2013
- Student Volunteer Co-Chair, GRAND-NCE 2012 annual meeting

Program Committee & Editorial Board Positions

- Associate Chair, ACM Conference on Human Factors in Computing Systems (CHI) Games Sub-Committee, 2018
- Program Committee Member, Graphics Interface 2013, 2017, 2018
- Program Committee Member, IEEE Symposium on 3D User Interfaces – 3DUI 2013, 2014, 2015, 2016
- Program Committee Member, IEEE Games, Entertainment, and Media Conference – GEM 2015
- Program Committee Member, Australasian User Interface Conference – AUIC 2015, 2016
- Associate Chair, ACM Symposium on Spatial User Interaction – SUI 2013, 2014, 2015
- Program Committee Member, International Conference on Advances in Computer-Human Interaction – ACHI 2015
- Review Editor, *Frontiers in Virtual Environments*, 2014 – present
- Associate Chair, ACM Conference on Virtual Reality Software and Technology – VRST 2012
- Associate Chair, GRAND-NCE RNotes (Student Research Track) 2011 – 2013

Reviewer

- International Journal of Human Computer Studies, 2008, 2010, 2011, 2017
- ACM Conference on Virtual Reality Software and Technology – VRST 2008, 2012, 2016
- ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play – CHI Play 2014, 2015, 2016
- International Journal of Human-Computer Interaction, 2016
- ACM Conference on Human-Computer Interaction with Mobile Devices and Services – MobileHCI 2015, 2017
- ACM Conference on Human Factors in Computing Systems – CHI 2013, 2014, 2015
- IEEE Transactions on Visualization and Computer Graphics 2010, 2014, 2015
- IEEE Games, Entertainment, and Media Conference – GEM 2014
- ACM User Interface Software and Technology Symposium – UIST 2014
- IEEE Symposium on 3D User Interfaces – 3DUI 2009 – 2014
- Graphics Interface 2008, 2010, 2014
- IEEE Virtual Reality Conference – VR 2009 – 2012
- Computers and Graphics Journal, 2012
- ACM FuturePlay 2009 – 2010
- IEEE Computer Graphics & Applications, Special Issue on 3D User Interfaces, 2009

Student Volunteer

- ACM Conference on Human Factors in Computing Systems – CHI 2006 – 2007, 2010 – 2013
- IEEE Virtual Reality Conference – VR 2006 – 2007, 2009 – 2013
- International Symposium on Mixed and Augmented Reality – ISMAR 2009

Other Memberships

- IMMERSe – SSHRC Research Network for Video Game Immersion, 2013 – present
- GRAND-NCE – Graphics, Animation and New Media, Network Centres of Excellence, 2010 – 2013
- Member, Association for Computing Machinery (ACM), 2006 – present
- Member, Institute of Electrical and Electronics Engineers (IEEE), 2006 – present

Other

- Session Chair, IEEE 3DUI 2016
- Session Monitor, Graphics Interface 2014
- Session Monitor, GRAND-NCE RNotes 2012, 2013
- Session Monitor, ACM Conference on Virtual Reality Software and Technology – VRST 2012

OTHER INTERESTS / HOBBIES

- Video game playing/programming
- Reading: Sci-fi, fantasy
- Outdoors: Camping, hiking, fishing
- Sports: Muay-thai (Thai boxing), swimming

REFERENCES

Available upon request