Mounia Ziat (ENG., M.S., PH.D.) – Associate Professor

Phone: +1 781 891 2223, E-mail: mziat@bentley.edu, Web: http://www.mouniaziat.com

Education	
10. 02 – 11. 06	Compiegne University of Technology, Compiegne, France Doctor of Philosophy, Cognitive Science Dissertation: Learning and use of a zoom function implemented in a mobile tactile interface. Experiments and ergonomics.
11. 01 - 09. 02	Complege University of Technology, Complege, France Master of Cognitive Science Dissertation: Acuity of a Sensory substitution device.
09. 98 - 06. 01	École des Beaux-Arts, Algiers, Algeria Graphics designer
09. 91 - 06. 97	University of Sciences and Technology of Ferhat Abass, Setif, Algeria Engineer, Electronics Option: "Instrumentation"
Academic Po	ositions
07. 01 – to date	Bentley University, Associate Professor Information Design and Corporate Communication
08. 14 – 06.29	Northern Michigan University, Associate Professor Psychology department
04. 14 – to date	Northern Michigan University, Director of the Neuroscience Program Psychology and Biology departments
08. 11 – 08. 14	Northern Michigan University, Assistant Professor Psychology department
03. 09 - 07. 11	Wilfrid Laurier University, Post-Doctoral fellow Laurier Centre for Cognitive Neuroscience
07. 07 - 02. 09	McGill University, Post-Doctoral fellow Centre for Intelligent Machines
10. 02 – 07. 07	Compiegne University of Technology, Lecturer Technology and Human Sciences department
Visiting Posi	tions
05. 20 –07.20	University of Tampere, Finland, Visiting Researcher Dr. Roope Raisamo, TAUCHI Research Center
11. 17 –12.17	Istituto Italiano di Tecnologia, Genoa, Italy, Visiting Professor Dr. Luca Brayda, Robotics, Brain and Cognitive Sciences
07. 17 –08.18	University of California, Los Angeles, Visiting Associate Researcher Dr. Ladan Shams, Psychology department

05. 17 –06.17	University of Tampere, Finland, Visiting Researcher Dr. Roope Raisamo, TAUCHI Research Center	
10. 16 –12.16	University of Tampere, Finland, Visiting Researcher Dr. Roope Raisamo, TAUCHI Research Center	
05. 16 –08.16	University of California, Los Angeles, Visiting Researcher Dr. Ladan Shams, Psychology department	
07. 15 –08.15	University of California, Los Angeles, Visiting Researcher Dr. Ladan Shams, Psychology department	
05. 15 –06.15	Columbia University, Visiting Researcher Dr. Qi Wang, Biomedical Engineering department	
11. 07 – 12. 07	Max Planck Institute of Cybernetics, Tubingen, Germany, Visiting Postdoc Dr. Marc Ernst, Perception and Action Lab.	
Grants		
01. 17 - 01. 19	Oculus Research (\$200,000) - PI "Edge and Corner Detection using Vibrotactile Actuators"	
08. 16 - 08. 17	Oculus Research (\$15,000) - PI "Haptics for Human Perception"	
05. 13 - 12. 13	Cross-Fertilization Student Exchange Program, IEEE Technical Committee on Haptics (TCH) (\$2,000) – co-PI "Physiological responses of emotions expressed through the haptic channel"	
04. 12 - 04. 14	Faculty Research Grant Program, Northern Michigan University (\$7.000) - PI "Behavioral and electrophysiological responses associated with the processing of touch in a driving simulator environment"	
Honors and Awards		
12. 01. 18	Recipient of the 2018-2019 NMU Technology Innovation Award	
12. 01. 16	Recipient of the 2016-2017 NMU Technology Innovation Award	
12. 03. 15	Recipient of the 2015-2016 NMU Excellence in Scholarship Award	
07. 07 - 08. 08	McGill University, Enactive Post-Doctoral Fellowship	
10. 02 - 09. 05	Complegne University of Technology, French Research Ministry: fellowship for graduate study	
10. 02 - 09. 05	Complege University of Technology, Scholarship from CIES (France) to support teaching	

Publications

Undergraduate and graduate students' names are underlined

Peer-reviewed Articles

- 1. <u>Chin, K., Thompson, M.</u>, & **Ziat, M.** (2021). The Effect of Multimodal Virtual Reality Experience on the Emotional Responses Related to Injections. In Proceedings of the 2021 International Conference on Human Computer Interaction Theory and Applications (HUCAPP'21).
- 2. **Coe, P.**, Evreinov, G., **Ziat, M.**, & Raisamo, R. (2021). Generating Localized Haptic Feedback over a Spherical Surface. In Proceedings of the 2021 International Conference on Human Computer Interaction Theory and Applications (HUCAPP'21).
- 3. **Ziat, M.**, Chin, K., & Raisamo, R. (2020). Effects of Visual Locomotion and Tactile Stimuli Duration on the Emotional Dimensions of the Cutaneous Rabbit Illusion. In Proceedings of the 2020 International Conference on Multimodal Interaction (pp. 117-124).
- 4. De Grosbois, Di Luca, M., King, R., & **Ziat, M.** (2020). The Predictive Perception of Dynamic Vibrotactile Stimuli Applied to the Fingertip. In 2020 IEEE Haptic Symposium (in press).
- 5. de Grosbois, J., King, R., Di Luca, M., Parise, C., Bazen, R., & **Ziat, M.** (2019). The frequency of tactile adaptation systematically biases subsequent frequency identification. In 2019 IEEE World Haptics Conference (WHC) (pp. 295-300).
- 6. de Grosbois, J., Di Luca, M., King, R., Parise, C., & **Ziat, M.** (2019). Exogenous cueing of visual attention using small, directional, tactile cues applied to the fingertip. In 2019 IEEE World Haptics Conference (WHC) (pp. 455-460). IEEE.
- 7. **Ziat, M.**, Snell, K., Johannessen, C., Raisamo, R. (2018) How Visual Images and Tactile Durations Affect the Emotional Ratings of the Cutaneous-Rabbit Illusion. *Springer LNCS, Eurohaptics*, 58-68.
- 8. Middleton, J., Hakulinen, J., Tiitinen, K., Hella, J., Keskinen, T., Huuskonen, P., Linna, J., Turunen, M., Raisamo, R., **Ziat, M.** (2018) Sonification with musical characteristics: A path guided by user-engagement. In *proceedings of the 24th International Conference on Auditory Display (ICAD 2018)*.
- 9. **Ziat, M.**, Park, M., Kakas, B., Rosenbaum, D. (2018) Why potters make shorter vessels on the wheel when one or two of their modalities are reduced? *Perception*, *47*(*8*), 860-872.
- 10. Morrow, K. and **Ziat, M.** (2018) Tactile Spatial Acuity of the Neck Using a Two-Point Orientation Discrimination Task. *IEEE Haptics Symposium 2018*, San Francisco, CA.
- 11. **Ziat, M.** (2017) Haptics and HCI, Foundations and Trends in Human-Computer Interaction (in press), 2018, pp. 150.
- 12. Reed, C., **Ziat, M.** (2017) Haptic Perception: From the Skin to the Brain. *The Reference Module in Neuroscience and Biobehavioral Psychology (in press)*.
- 13. <u>Tsalamlal, Y., Rizer, W.</u>, Martin, J-C., Ammi, M., **Ziat, M.** (2017) Affective Communication through Air Jet Stimulation: Evidence from Events-Related Potentials. *International Journal of Human-Computer Interaction (in press)*.
- 14. **Ziat, M.**, Raisamo, R. The Cutaneous-Rabbit Illusion: What if it is not a Rabbit? *IEEE Worldhaptics* 2017, Furstenfeldbruck, Germany, June 2017, 540-545 (*Acceptance rate: 59%*)

- 15. Huggins, J., Guger, C., **Ziat, M.**, Zander, T. O., Taylor, D., Tangermann, M., ... Aarnoutse, E. J. (2017). Workshops of the Sixth International Brain-Computer Interface Meeting: Brain-Computer Interfaces Past, Present, and Future. *Francis and Taylor Brain-Computer Interfaces (in press)*
- 16. <u>Savord, A.</u>, <u>Wisuri, E.</u>, Pless, P., Frissen, I. **Ziat, M.** (2017) Movement alteration in flute players: Can it help us understand focal dystonia? *Critical Reviews in Physical and Rehabilitation Medicine (in press)*.
- 17. Ziat, M. <u>Wagner, S.</u>, Frissen, I. Compensatory Haptic feedback to the Absence of Horizon Cues during Landing: a Possible Solution for the Black Hole Illusion. *Springer LNCS, Eurohaptics 2016.* (Acceptance rate: 22%)
- 18. Ziat, M. Balcer, C. A., Rolison, T., Schirtz, A. A century later, the hue-heat hypothesis: does color truly affect temperature perception? *Springer LNCS, Eurohaptics 2016.* (Acceptance rate: 22%). Nominated for Best Paper Award (top 5/98 papers).
- 19. **Ziat, M.**, Yao, H.-Y., <u>Schmitt, R.</u>, Hayward, V. FrontPanel: Tangible User Interface for Touch-Screens Dedicated to Elderly. *ACM CHI 2016 Extended Abstracts*, San Jose, CA, May 2016.
- 20. Morrow, K., Wilbern, D., Taghavi, R., Ziat, M. The Effects of Duration and Frequency on the Perception of Vibrotactile Stimulation on the Neck. *IEEE Haptics Symposium 2016.* (Acceptance rate: 49%)
- 21. <u>Piggott, L.</u>, <u>Wagner, S.</u>, **Ziat, M.** (2016), Haptic Neurorehabilitation and Applications of Virtual Reality for Upper Limb Paralysis: A Review, Critical Reviews in Biomedical Engineering (In Press).
- 22. **Ziat, M.**, <u>Savord, A.</u>, Frissen, I. (2015). The effect of Visual, Haptic, and Auditory Signals Perceived from Rumble Strips during Inclement Weather. *IEEE Worldhaptics* 2015, Evanston, IL, June 2015, 351-355 (*Acceptance rate: 43%*)
- 23. **Ziat, M.**, Bensmaia, S. (2015). Neuroprosthetics, *International Encyclopedia of Social and Behavioral Sciences*, eds. James Wright, 714-721
- 24. **Ziat, M.**, Lecolinet, E., Gapenne, O., Mouret, G., & Lenay, C. (2014). Perceptual Strategies under Constrained Movements on a Zoomable Haptic Mobile Device. In *Haptics: Neuroscience, Devices, Modeling, and Applications*, Springer Berlin Heidelberg, 224-231.
- 25. **Ziat, M.**, Rolison, T., Shirtz, A., Wilbern, D., and Balcer C. A. (2014) Enhancing Virtual Immersion through Tactile Feedback, *ACM UIST'14 Adjunct*, Honolulu, Hawaii, October 2014, 65-66. (*Acceptance rate: 30%*)
- 26. Ziat, M., Fridstrom, J., Kilpela, K., Fancher, J., and Clark, J.J. (2014) InGrid: Interactive Grid Table, *ACM CHI 2014 Extended Abstracts*, Toronto, ON, April-May 2014, 559-562. (*Acceptance rate: 38%*)
- 27. **Ziat, M.**, <u>Brown, C.</u>, <u>Smith, E.</u>, <u>DeWolfe, C.</u>, Hayward, V. (2014) Ebbinghaus Illusion in the Tactile Modality, *IEEE Haptic Symposium 2014*, Houston, TX, February 2014, 581 585.
- 28. **Ziat, M.**, <u>Konieczky, C.</u>, Kakas, B. (2014) Throwing of a Ceramic Cylindrical Vessel: How Height is Affected by Sensory Deprivation, *IEEE Haptic Symposium 2014*, Houston, TX, February 2014, 529-530.
- 29. **Ziat, M.**, Frissen, I., Campion, G., Hayward, V., & Guastavino, C. (2013). Plucked String Stiffness Affects Loudness Perception. In *Haptic and Audio Interaction Design*. Springer Berlin Heidelberg. pp. 79-88.

- 30. **Ziat, M.**, <u>Fancher, J.</u>, <u>Kilpela, K.</u>, <u>Fridstrom, J.</u>, Clark, J. J. (2013) InGrid: Rethinking the Embodied Space, *ACM CHI'2013 workshop on blended interaction*, 2013, 4 p. **(Acceptance rate: 59%)**
- 31. **Ziat, M.** and <u>Saoud, W.</u> (2013) The Progress Bar as a Time Metaphor of Continuity and Discontinuity, *ACM CHI'2013 workshop on perspectives of time*, 2013, 4 p. **(Acceptance rate: 50%)**
- 32. Frissen, I., **Ziat, M.**, Campion, G., Hayward, V., & Guastavino, C. (2012). The effects of voluntary movements on auditory—haptic and haptic—haptic temporal order judgments. *Acta psychologica*, 141(2), 140-148.
- 33. **Ziat, M.**, Au, C., Abolhassani, A. H., & Clark, J. J. (2012). Enhancing visuospatial map learning through action on cellphones. *ACM Transactions on Applied Perception (TAP)*, 9(1), 501-515.
- 34. **Ziat, M.**, Hayward, V., Chapman, C. E., Ernst, M. O., & Lenay, C. (2010). Tactile suppression of displacement. *Experimental brain research*, 206(3), 299-310.
- 35. **Ziat, M.**, Gapenne, O., Stewart, J., & Lenay, C. (2007). Haptic recognition of shapes at different scales: A comparison of two methods of interaction. *Interacting with Computers*, 19(1), 121-132.
- 36. **Ziat, M.,** Lenay, C., Gapenne, O., Stewart, J., Ammar, A. A., & Aubert, D. (2007). Perceptive supplementation for an access to graphical interfaces. In *Universal Acess in Human Computer Interaction*. Springer Berlin Heidelberg, pp. 841-850.
- 37. **Ziat, M.** (2007) Haptic Zoom, Zoomable experience, Zoomable interfaces. *In A. Luciani and C. Cadoz (eds.): Enaction and Enactive Interface: a Handbook of Terms, Enactive Systems Books*, Grenoble. ISBN 978-2-9530856-0-0
- 38. **Ziat, M.**, Gapenne, O., Lenay, C., and Stewart, J. (2007) Zooming experience in the haptic modality. *3rd International Conference on Enactive Interfaces (ENACTIVE'07)*, November 23rd- 21st, 2007, Grenoble, France, 305-308.
- 39. **Ziat, M.**, Gapenne, O., Stewart, J., Lenay, C. (2007) Manipulation d'un zoom haptique continu via un dispositif de substitution sensorielle, *19th French-speaking conference on Humain Computer Interaction (ACM IHM'07)*, Paris, November 17-12th, 2007, 63-70.
- 40. **Ziat, M.**, Gapenne, O., Stewart, J., Lenay, C and <u>Bausse, J.</u> (2007) Design of a Haptic Zoom: levels and steps. *Proceedings of IEEE Worldhaptics'07*, Tsukuba, Japan, March 22-24, 2007, 102-108.
- 41. **Ziat, M.**, Gapenne O., Lenay, C. and Stewart, J. (2007) Perception limits of a sensory substitution device by using an acuity test. *Proceedings of Human Machine iNteraction Conference (Human'07)*, Timimoun, Algeria, March 12-14, 2007, 201-206.
- 42. **Ziat, M.**, Gapenne, O., Lenay, C., Lecolinet, E., Mouret, G., & Stewart, J. (2006). Espace de perception et seuils de confort pour un zoom haptique en 2D. *Revue d'Interaction Homme-Machine*, Vol, 7(1), 29-54.
- 43. **Ziat, M.**, Gapenne, O., Lenay, C. and Stewart, J. (2006) Zoomable user interfaces: Ecological and Enactive. *2nd International Conference on Enactive Interfaces (ENACTIVE'06)*, Montpellier, France, November 20-21, 2006, 239-240.
- 44. **Ziat, M.**, Gapenne, O., Stewart, J. and Lenay, C. (2006) Checking the two-third power law for shapes explored via a sensory substitution device. *2nd International Conference on Enactive Interfaces (ENACTIVE'06)*, Montpellier, France, November 20-21, 2006, 95-96.

- 45. **Ziat, M.**, Gapenne, O., <u>Rouze, M.-O.</u> and <u>Delwarde, A.</u> (2006) Recognition of different scales by using a haptic sensory substitution device. *In the proceedings of Eurohaptics' 2006*, Paris, France, July 3-6, 2006, 513-518.
- 46. **Ziat, M.**, Gapenne, O., Lenay, C. and Stewart, J. (2005) Perception in numerical and corporeal spaces in a 2D haptic virtual world. *In the proceedings of the 2nd International Conference on Enactive Interfaces (ENACTIVE'05)*, Genova, Italy, November 17-18, 2005, 10 p.
- 47. **Ziat, M.**, Gapenne, O., <u>Delwarde, A.</u>, and <u>Rouze, M.-O.</u> (2005) Haptic Differentiation between Different Scales, *Proceedings in Designing Pleasurable Products and Interfaces (DPPI'05)*, Eindhoven, the Netherlands, October 24-28, 2005, 480-481.
- 48. **Ziat, M.**, Gapenne, O., Stewart, J., Lenay, C. (2005) A comparison of two methods of scaling on form perception via a haptic interface. *Seventh International Conference on Multimodal Interfaces (ACM ICMI'05)*, Trento, Italy, October 04-06, 2005, 236-243.
- 49. **Ziat, M.**, Gapenne, O. (2005) Etude préliminaire visant la détermination de seuils de confort pour un zoom haptique. *17th French-speaking conference on Humain Computer Interaction (ACM IHM'05)*, Toulouse, France, 27-30 septembre, 2005, 3-10. **Nominated for Best Paper Award**
- 50. **Ziat, M.** (2004) Scaling form or sensor: A question for the design of a pseudo-haptic zoom dedicated to PDA, *Designing Interactive Systems (ACM DIS'04), Doctoral Consortium,* Cambridge, Massachusetts, USA, August 1-4, 2004, 5 p.
- 51. **Ziat, M.**, Gapenne, O., Lenay, C., Stewart, J. (2004) Acuité perceptive via une interface pseudo-haptique. *16th French-speaking conference on Humain Computer Interaction (ACM IHM'04)*, Namur, Belgique, 30 août 30 3 septembre, 2004, 263-266.

Abstracts and Demos

- 1. **Ziat, M.**, Chin, K., Raisamo, R. (2020). Emotional Ratings of the Cutaneous Rabbit Illusion: Effects of Visual Locomotion and Tactile Duration. *Psychonomic Society Meeting*, Virtual. *(Talk)*
- 2. **Ziat, M.**, <u>deGrobois, J.</u>, <u>Bazen, R.</u>, <u>Misse, D.-A.</u>, Cabe, P. (2019) String-mediated Force-based Haptic Perception of Shape from Motion. *Psychonomic Society Meeting*, Montreal, Canada, November 2019. (*Poster*)
- 3. <u>Murray, C., Gaboury, H., Angel, M., Ziat, M.</u> (2019) Investigation of Fabric Texture Aversion in Haptodysphoric Individuals. *Psychonomic Society Meeting*, Montreal, Canada, November 2019. (*Poster*)
- 4. **Ziat, M.**, <u>Johannessen, C.</u>, <u>Snell, K.</u>, Raisamo, R. (2017) How visual saltators affect the emotional dimensions of the cutaneous rabbit effect. *Psychonomic Society Meeting*, Vancouver, Canada, November 2017. *(Talk)*
- 5. **Ziat, M.** and Raisamo, R. (2017) How Saltational Animals Modulate the Emotional Dimensions of Saltation. *IEEE Worldhaptics* 2017, Furstenfeldbruck, Germany, June 2017. *(Demo)*
- 6. <u>Schramski, K., Varney, J., Buentello, I.</u>, Newell, F., **Ziat, M.** (2016) Randomness in Touch: Perception of Local and Global Disturbances, *Psychonomic Society Meeting*, Boston, MA, November 2016. *(Poster)*
- 7. Morrow, K., Ziat, M. (2016) Tactile spatial acuity of the neck using a two-point orientation discrimination task, *Society for Neuroscience 2016*, San Diego, CA, November 2016. (*Poster*)

- 8. <u>Morrow, K., Wilbern, D.</u>, Taghavi, R., **Ziat, M.** (2016) Vestibular-Tactile Substitution: Vertical Posture Correction using Vibrotactile Stimulation on the Neck, *IEEE Haptics Symposium 2016*, Philadelphia, PA, April 2016. (*Demo*)
- 9. **Ziat, M.**, Yao, H.-Y., Hayward, V. (2016) FrontPanel: Enhancing Touch-Screen Accessibility for Seniors, *IEEE Haptics Symposium 2016*, Philadelphia, PA, April 2016. *(Demo)*
- 10. **Ziat, M.**, <u>Konieczky, C.</u>, <u>Park, MK</u>, Kakas, B., Rosenbaum, D. (2015) Potters Make Shorter Clay Pots at the Wheel When Their Vision, Touch, or Hearing Is Reduced, *Psychonomic Society Meeting*, Chicago, IL, November 2015. *(Talk)*
- 11. <u>Schramski, K.</u>, Newell, F., **Ziat, M.** (2015) Good Gestalt: Orderliness Perception through Touch, *Psychonomic Society Meeting*, Chicago, IL, November 2015. *(Poster)*
- 12. <u>Crowel, S., Messer, Z., Aday, J., Bratonia, C., Ziat, M.</u> (2015) Negatively Connoted Music Increases Brain Activity in the Prefrontal Cortex: A NIRS Study, *Society for Neuroscience*, Chicago, IL, October 2015. *(poster)*
- 13. <u>Shirtz, A., Morrow, K., Savord, A., Ziat, M.</u> (2015) Virtual Mirror Box for Lower Limbs using EMG, *IEEE Worldhaptics 2015*, Evanston, IL, June 2015. *(Demo)*
- 14. <u>Wilbern, D.</u>, <u>Savord, A.</u>, <u>Morrow, K.</u>, **Ziat, M.** (2015) Visual-Haptic Hallucinations, *IEEE Worldhaptics* 2015, Evanston, IL, June 2015. (*Demo*)
- 15. <u>Haara, M., Stark, V., Johnson, D.</u>, Horn, J. **Ziat, M.** (2015) Virtual Exosuit with Haptic Feedback, *IEEE Worldhaptics 2015*, Evanston, IL, June 2015. *(Demo)*
- 16. <u>Tsalamlal, M. Y., Rizer</u>, W., Martin, J.-C., Ammi, M., **Ziat, M.** (2015) Evented Related Potentials Using an Air Jet Tactile Stimulation, *Cognitive Neuroscience Society Meeting*, San Francisco, CA, March 2015. *(Poster)*
- 17. <u>Rizer, W., Wilbern, D., Prychitko, S., Savord, A.</u>, **Ziat, M.** (2015) Haptic Hallucinations: Evidence from Event-Related Potentials, *Cognitive Neuroscience Society Meeting*, San Francisco, CA, March 2015. (*Poster*)
- 18. <u>Balcer, C. A., Schirtz, A., Rolison, T., Ziat, M.</u> (2014) Visual Cues Effects on Temperature Perception. *Psychonomic Society Meeting*, Long Beach, California, November 2014. *(Talk)*
- 19. <u>Savord, A., Wisuri, E., Pless, P., **Ziat, M.** (2014) Kinesthetic Memory Adaptation in Flute Players, *BK25 Milestones in Music and Cognition*, Montreal, Canada, July 7-8th 2014. *(Poster)*</u>
- 20. **Ziat, M.**, Smith, E., Calvetti, C., Hayward, V. (2014) Ebbinghaus Illusion in Touch. *The UEA Perception and Action Workshop*, Norwich, UK, June 9th, 2014. *(Poster)*
- 21. Smith, E., Calvetti, C., Ziat, M., Hayward, V. (2014) How is the Ebbinghaus Illusion affected by touch? *Upper Peninsula Interdisciplinary Student Research Conference (UPISR)*, Houghton, MI, April 22nd, 2014. (*Poster*)
- 22. **Ziat, M.**, <u>Konieczky, C.</u>, Kakas, B. (2014) Throwing of a Ceramic Cylindrical Vessel: How Height is Affected by Sensory Deprivation, *Upper Peninsula Interdisciplinary Student Research Conference (UPISR)*, Houghton, MI, April 22nd, 2014. **(Poster)**
- 23. <u>Savord, A.</u>, <u>Wisuri, E.</u>, Pless, P., **Ziat, M.** (2014) Kinesthetic Memory Adaptation in Flute Players, *Upper Peninsula Interdisciplinary Student Research Conference (UPISR)*, Houghton, MI, April 22nd, 2014. *(Talk)*

- 24. <u>Fancher, J.</u>, <u>Kilpela, K.</u>, <u>Fridstom, J.</u>, **Ziat, M.** (2014) InGrid: Interactive Grid Table, *Upper Peninsula Interdisciplinary Student Research Conference (UPISR)*, Houghton, MI, April 22nd, 2014. *(Talk)*
- 25. <u>Balcer, C. A., Rolison, T., Schirtz, A., Ziat, M.</u> (2014) How Visual Cues Affect Tactile Temperature Perception, *Upper Peninsula Interdisciplinary Student Research Conference (UPISR)*, Houghton, MI, April 22nd, 2014. *(Talk)*
- 26. <u>Wagner, S.</u>, **Ziat, M.** (2014) Night Landing Task Using a Haptic Device, *Upper Peninsula Interdisciplinary Student Research Conference (UPISR)*, Houghton, MI, April 22nd, 2014. **(Talk)**
- 27. <u>Balcer, C. A., Schirtz, A., Rolison, T., Ziat, M.</u> (2014) Is Seeing Warm, Feeling Warm?, *IEEE Haptics Symposium 2014*, Houston, TX, February 2014. *(Demo)*
- 28. <u>Brewster, P., Hock, C., Flint, L., Lanthier, A., Ziat, M., Dow, D., Hartman, M. (2014) BCI Tactile Cursor Task, IEEE Haptics Symposium 2014</u>, Houston, TX, February 2014. *(Demo)*
- 29. Rolison, T., Ziat, M. (2014) Do You Feel the Music?, *IEEE Haptics Symposium 2014*, Houston, TX, February 2014. (*Demo*)
- 30. **Ziat**, M., <u>Konieczny, C.</u>, Kakas, B. (2013) Multimodal Integration During the Shaping of a Round Ceramic Cylinder, *Psychonomic Society Meeting 2013*, p.231, Toronto, ON. *(Poster)*
- 31. <u>Fancher, J.</u>, <u>Smith, E.</u>, **Ziat, M.** (2013) Haptic Hallucination Sleeve, *IEEE WorldHaptics 2013*, Daejeon, Korea, April 2013. (*Demo*). <u>Nominated for Best Demo Award (top 3/ 80 demos)</u>.
- 32. **Ziat, M.**, Hayward, V., Pless P., <u>Sicotte C.</u> (2012) Tactile Suppression of Displacement Device, *IEEE Haptics Symposium 2012*, Vancouver, Canada, March 2012. (*Demo*)
- 33. **Ziat, M.**, Hayward, V., Servos, P., and Ernst, M. (2011) Visuomotor Coordination under two types of reflections, *Psychonomic Society 2011*, Seattle, WA. *(Poster)*
- 34. Servos, P., **Ziat, M.** (2011) Tactile Suppression of Displacement: Early evidence using ERP, *ISBN* 2011, Verona, Italy. (*Talk*)
- 35. **Ziat, M.**, Servos, P., Hayward, V., <u>Saoud, W.</u> (2011) Tactile Suppression of Displacement: Evidence from Event-related Potentials, *CNS 2011.* (*Poster*)
- 36. Servos, P., Boyd, A., Planetta, J., **Ziat, M.** (2011) Somatosensory Maps in Time and Space, *Canada Research Chair*, Nov. 24th, 2010, Toronto. *(Poster)*
- 37. Frissen, I., **Ziat, M.**, Campion, G., Hayward, V., Guastavino, C. (2009) Auditory-tactile temporal order judgments during active exploration, *IMRF 2009*. *(Poster)*
- 38. **Ziat, M.**, Hayward, V., Chapman, C. E., Ernst, M., Lenay, C. (2008) Revisiting the fingertip-fovea analogy, *Perception 37 (ECVP 2008 Abstract Supplement)*, 08 2008. **(Poster)**
- 39. Ziat, M., Gapenne, O., Lenay, C., Stewart, J., and Aubert, D. (2008) Tactos: a sensory substitution device for an active perception, *IEEE Worldhaptics'07 supplement*, Tsukuba, Japan (March 22-24, 2007). (*Demo*)
- 40. **Ziat, M.**, Gapenne, O., Lenay, C. and Stewart, J. (2002) Prothèses Perceptives: Acuité dynamique et stratégies d'explorations, *Journée du Réseau de sciences cognitives d'Ile-de-France*, Collège de France, Paris, France, 18 octobre 2002, page 50. *(Poster)*
- 41. **Ziat, M.**, Gapenne, O., Lenay, C. and Stewart, J. (2001) Study of the dynamical acuity through a sensory substitution device in blindfolded subjects. *Movement, action and consciousness: toward a*

physiology of intentionality. A symposium in honor of Marc Jeannerod, Institut for Cognitives Sciences, Lyon, France, 27-28 septembre, 2002. (*Poster*)

Workshops

- 1. Ziat, M. (2016) Haptic Guidelines for BCI Research, BCI Meeting 2016, Pacific Grove, June, 2016
- 2. Guger, C., **Ziat, M.** (2015) Current and future applications of non-invasive and invasive BCls, g.TEC and Northern Michigan University, October 23rd, 2015.
- 3. **Ziat, M.**, Frisoli, A., van Erp, J. (2014) Non-Invasive BCI and Haptics, Eurohaptics 2014, Versailles, France, June, 2014
- 4. **Ziat, M.**, Frisoli, A., van Erp, J., Guger, C. (2014) Brain Computer Interfaces & Haptics, IEEE Haptics Symposium 2014, Houston, TX, February, 2014.
- 5. Rutkowski, T., Kapeller, C., Hori, G., **Ziat, M.**, Chang M., and Moru, H. (2013) Tactile and Bone-Conduction Based BCI Paradigms State of the Art, Challenges and Potential New Applications, *The 5th International Brain-Computer Interface Meeting (BCl'13)*, Pacific Grove, California, June 3-7, 2013.
- 6. **Ziat, M.** and Lecuyer, A. (2013) Workshop on haptics and BCI (Brain-Computer Interface), Daejeon, *IEEE WorldHaptics 2013*, April 2013.

Thesis

- 1. **Ziat, M.** (2006) Learning and usage of a zoom function implemented in a mobile tactile interface, Ph.D Thesis, *UTC*, November 2006. **Nominated for Best Thesis of the Year (2006) and published by the PAF (Presses Academiques Francaises) in August 2013**. ISBN: 978-3841622198
- 2. **Ziat, M.** (2002) Dynamic Acuity of a Sensory substitution device, Master Thesis, UTC, September 2002.

Submitted/ In Progress

- 1. **Ziat, M.**, Morrow, K. Haptic Hallucination Sleeve: Bug-like Sensations Display Larger ERPs, Submitted to *Critical Reviews in Neurobiology*.
- 2. **Ziat, M.**, Saoud, W., Prychitko, S., Servos, P., Grondin, S. Progress Bars and Throbbers for Studying the Continuous and Discontinuous Nature of Time.
- 3. **Ziat, M.**, Servos, P., Hayward, V., <u>Saoud, W.</u> Event-related Potentials: Evidence for Tactile Suppression of Displacement.
- 4. **Ziat, M.**, Hayward, V., Servos, P., Ernst, M. Mental Rotations, Reflections and Visuo-motor Conflicts.

Talks

Invited Talks

- "TBA", BostonCHI, April 13th, 2021.
- "The Affective Dimensions of the Cutaneous Rabbit Effect", Affective Haptics as a Direct Link to Emotion Workshop, Worldhaptics Conference, 2019, Tokyo, Japan, July 9th, 2019.
- "AV Technology and Design", The Future of Automobile Conference, Petersen Automotive Museum, May 3rd, 2018. Link: https://www.futureoftheautomobile.org/

- "Haptics in Automobiles", Petersen Automotive Museum, April 28th, 2018.
- "Perceptual Illusions II", PSY201: Critical Thinking, Chapman University, January 17th, 2018.
- "Perceptual Illusions I", PSY201: Critical Thinking, Chapman University, January 10th, 2018.
- "How visual saltators affect the emotional dimensions of the cutaneous rabbit effect", Instituto Italiano di Tecnologia, Genoa, Italy, December 1st, 2017
- "Learning Tangible Interaction from Seniors", Workshop on Haptic Interfaces for Accessibility, Worldhaptics, Furstenfeldbruck, Germany, June 6th, 2017
- "Haptics for Human Perception", Instituto Italiano di Tecnologia, Genoa, Italy, April 7th, 2017
- "Haptics and Tangible User Interfaces", School of Information Sciences, University of Tampere, December 8th, 2016
- "Haptics for Human Perception", School of Information Sciences, University of Tampere, October 13th, 2016
- "The Neck: Sensory Substitution and BCI", Ladan Shams' lab meetings, UCLA, August 9th, 2016
- "Haptics for Human Perception", Oculus Research, Redmond, July 21st, 2016
- "Haptics for Human Perception", Ladan Shams' lab meetings, UCLA, July 19th, 2016
- "Psychology and Physiology of Touch", BCI'16, Pacific Grove, CA, June 2nd, 2016
- "Haptics for Human Perception", Yon Visell' lab meetings, UCSB, May 20th, 2016
- "Potters Make Shorter Clay Pots at the Wheel When Their Vision, Touch, or Hearing Is Reduced", Ladan Shams' lab meetings, UCLA, December 9th, 2015
- "Haptics and BCI", G.TEC and NMU workshop, NMU, October 23rd, 2015
- "Haptics", Ladan Shams' lab meetings, UCLA, July 22nd, 2015
- "Lighting up the brain with tactile inputs", Haptics for Neuroscience and Neuroimaging (HNN)
 Workshop, ICRA'15, Washington State Convention Center, May 26th, 2015.
- "The effect of Visual, Haptic, and Auditory Signals Perceived from Rumble Strips during Inclement Weather", NMU Scholarship Recognition Reception, Marquette, MI, April 16th, 2015.
- "Tactile Suppression of Displacement: Evidence from Events-Related Potentials", Workshop "New perspectives in sensorimotor integration: predictive sensory suppression & tactile perception during movement", University of Giessen, Germany, January 11th, 2015.
- "Illusions, embodied space, and multisensory integration", ISIR, Université Pierre et Marie Curie, Paris, France, 10th July 2014.
- "Introduction to EEG and BCIs", Workshop on Non-Invasive BCI and Haptics, Eurohaptics'14, Versailles, Paris, 27th June 2014.
- "Cross-Disciplinary between Computer Science and Psychology", NMU CS Seminar Series, Marquette, MI, 11th March 2014.
- "Illusions, embodied space, and multisensory integration", Université de Sherbrooke, Quebec, 20th January 2014.
- "Introduction to BCIs", Workshop on BCI and Haptics, Haptics Symposium'14, Houston, TX, 23rd February 2014.
- *"Ebbinghaus Illusion in the Tactile Modality", TRG (Tactile Research Group), Psychonomic Society satellite meeting, Toronto, ON, November 14th, 2013.*
- "Illusions, embodied space, and multisensory integration", Department of Cognitive and Learning Sciences, Michigan Tech, Houghton, MI, 14th October 2013.

- "Illusions, embodied space, and multisensory integration", Immersion, Montreal, QC, 8th July 2013.
- "Introduction to Haptics", Workshop on Haptics and BCI, BCI'13, Pacific Grove, CA, 6th June 2013.
- "Optimal Integration of Multimodal Information during Inclement Weather Driving", Cognitive Neuroscience Department, University of Bielefeld, Germany, 22nd May 2013.
- "InGrid: Interactive Grid Table", SIGCHI Paris, Paris, France, 25th April 2013.
- "Introduction to BCIs", Workshop on Haptics and BCI, WHC'13, Daejeon, Korea, 14th April 2013.
- "Human-Interaction Research Program", NMU CS Seminar Series, Marquette, MI, 2nd April 2013.
- "Visuospatial Map Learning Through Action on Cell Phones", NMU Psychology Colloquia Series, Marquette, MI, November 9th, 2012
- "Tactile Suppression of Displacement: Evidence of ERP", TRG 2011, Seattle, WA, November 3rd, 2011.
- "Revisiting the fingertip-fovea analogy", Special Lecture, WLU, Waterloo, ON, Canada, May 5th, 2008.
- "Revisiting the fingertip-fovea analogy", CIM Thursday Reparti-Perception Meetings, McGill University, Montreal, QC, Canada, May 1st, 2008.

Conference Presentations

- "Emotional Ratings of the Cutaneous Rabbit Illusion: Effects of Visual Locomotion and Tactile Duration", Psychonomic Society Meeting, November 20th, 2020.
- *"Effects of Visual Locomotion and Tactile Stimuli Duration on the Emotional Dimensions of the Cutaneous Rabbit Illusion"*, ICMI, October 28th, 2020.
- "How visual saltators affect the emotional dimensions of the cutaneous rabbit effect",
 Psychonomic Society Meeting, Vancouver, Canada, November 11th, 2017.
- "Haptic feedback to compensate for the Absence of Horizon Cues during Landing", TRG (Tactile Research Group), Eurohaptics 2016, London, UK, July 7th, 2016.
- "A century later, the hue-heat hypothesis: does color affect truly temperature perception?", TRG (Tactile Research Group), Eurohaptics 2016, London, UK, July 7th, 2016.
- "Potters Make Shorter Clay Pots at the Wheel When Their Vision, Touch, or Hearing Is Reduced", Psychonomic Society Meeting, Chicago, IL, November 22nd, 2015.
- "The effect of Visual, Haptic, and Auditory Signals Perceived from Rumble Strips during Inclement Weather", Worldhaptics'15, Evanston, IL, June 24th, 2015.
- "Visual Cues Effects on Temperature Perception", Psychonomic Society Meeting, Long Beach, CA, November 22nd, 2014.
- "Tactile Spatial Segregation", TRG (Tactile Research Group), Psychonomic Society satellite meeting, Long Beach, CA, November 20th, 2014.
- "InGrid: Rethinking the Embodied Space", CHI'2013 Workshop, Paris, France, 28th April 2013
- "The Progress Bar as a Time Metaphor of Continuity and Discontinuity", ACM CHI'2013
 Workshop, Paris, France, 27th April 2013

- "Plucked string stiffness affects loudness perception", Daejeon, Korea, HAID'2013, 19th April 2013
- "Manipulation d'un zoom haptique continu via un dispositif de substitution sensorielle", 19th French-speaking conference on Humain Computer Interaction (IHM'07), Paris, November 17-12th, 2007
- "Design of a Haptic Zoom: levels and steps", Worldhaptics'07, Tsukuba, Japan, March 22-24,
 2007
- "Perception limits of a sensory substitution device by using an acuity test", Human Machine iNteraction Conference (Human'07), Timimoun, Algeria, March 12-14, 2007
- "Checking the two-third power law for shapes explored via a sensory substitution device", 2nd International Conference on Enactive Interfaces (ENACTIVE'06), Montpellier, France, November 20-21, 2006, 95-96
- "Haptic Differentiation between Different Scales", DPPI'05, Oct. 2005, Eindhoven, the Netherlands
- "Etude préliminaire visant la détermination de seuils de confort pour un zoom haptique", IHM'05, Sep. 2005, Toulouse, France
- "Acuité perceptive via une interface pseudo-haptique", IHM'04, Sep. 2004, Namur, Belgium
- "Scaling form or sensor: A question for the design of a pseudo-haptic zoom dedicated to PDA", DIS'04 (Doctoral Consortium), Aug. 2004, Cambridge, Massachusetts, USA

Teaching Experience

08. 19 – to date

Bentley University

Associate Professor

- HF750: Testing and Assessment (Fall 19/20; Spring 21).
- HF766: Multimodal Experience Design (Fall 20)
- HF799: Future Interactions (Fall 19).
- HF751: Measuring the User Experience (Spring 20/21).
- IDCC386: Research Methods (Spring 20).

08. 11 – 08.19

Northern Michigan University

Assistant/Associate Professor

- PY100S: Introduction to Psychology (Summer 15-17 (web)).
- PY241: Child Psychology (Summer 16-17 (web)).
- PY211: Learning (Fall 11-18 / 15-17 (web), Winter 12-14 / 15-16 (web), and Summer 12-16 (web)).
- PY311: Thinking and Cognition (Fall 11-18 and Summer 12 (web)).
- PY410: Sensation and Perception (Winter 12-17, Fall 13).
- PY561: Advanced Cognition (Winter 13).
- PY512: Advanced Learning and Memory (Winter 14, Winter 17).

01. 11 - 05. 11

University of Guelph-Humber

Sessional Lecturer

• AHSS1120: Principles of Psychology (Winter 11).

10.02 - 07.07

Complege University of Technology (UTC-France)

Lecturer and Instructor

• NF22: Computer and applications (Spring 03-07 and Fall 04-06).

• HE05: Biology and cognition (Spring 03-04 and Fall 03).

• SC24_1: Introduction to neurosciences (Spring 04 and Fall 03-04).

• SC24 2: Cognitive Science and learning (Spring 05-07 and Fall 05-06).

Ph.D. Thesis Committees

Genoa - Italy MariaCarla Memeo, Interactive and effective representation of digital content

April 6th, 2017 through touch using local tactile feedback

Tampere, Finland Jani Lylykangas, Regulating Human Behavior with Vibrotactile Stimulation

May 17th, 2017 (Thesis Opponent)

Porte Alegre, Brazil Victor Adriel de Jesus Oliveira, Design and assessment of haptic interfaces: an

July 16th, 2018 essay on proactive haptic articulation.

Editorial Committees and Ad-Hoc Reviews

Montreal - 2021 Associate Editor, WorldHaptics'21

Leiden - 2020 Program Committee, EuroHaptics'20

Tokyo - 2019 Program Committee, WorldHaptics'19

Demo Award Committee, WorldHaptics'19

San Francisco - 2018 Program Committee, Haptic Symposium'18

Munich - 2017 Associate Editor, Worldhaptics'17

2017 Reviewer for the EuroHaptics Society PhD award 2016

Jan. 2016 External reviewer for the Israeli Ministry of Science, Technology and Space,

2016 Research Program "Maïmonide-Israel"

London - 2016 Award Committee for best poster, Eurohaptics'16

Program Committee, EuroHaptics'16

Jun. 2015 Editorial Board, Haptic Magazine.

2014-2015 NIH Early Career Reviewer, Biobehavioral and Behavioral Processes (BBBP)

section.

2015 Editorial Committee, Intellectica: the journal of the French Assoc. for Research

on Cognition

Philadelphia - 2016 Program Committee, Haptic Symposium'16

2015 Reviewer for the EuroHaptics Society PhD award 2014

Chicago - 2015 Associate Editor, Worldhaptics'15

Sept. 14 NSF External Reviewer, Perception, Action, and Cognition program.

Versailles - 2014 Award Committee for best paper presentation, Eurohaptics'14

Program Committee, Eurohaptics'14

Houston – 2014 Program Committee, Haptic Symposium'14

Tampere - 2012 Program Committee, Eurohaptics'12

Seattle - 2011 Program Committee of the TRG (Tactile Research Group) meeting 2011 in

conjunction with the Psychonomic Society meeting

St. Louis - 2010 Program Committee of the TRG (Tactile Research Group) meeting 2010 in

conjunction with the Psychonomic Society meeting

Boston - 2009 Program Committee of the TRG (Tactile Research Group) meeting 2009 in

conjunction with the Psychonomic Society meeting

Journals' reviews Frontiers in Psychology (1 article); BCI (1 article); IJHCI (1 article); Acta

Psychologica (1 article); Psychonomic Bulletin & Review (1 article); Presence - MIT Press (3 articles); European Journal of Cognitive Psychology (1 article); IEEE Transactions on Systems, Man, and Cybernetics--Part A: Systems and Humans (1 article); ACM Transactions on Applied Perception (4 articles), IEEE Transactions on Haptics (11 articles); Assistive Technology (2 articles); PLos

ONE (5 articles).

Conferences' reviews CHI'15 (4 articles), Eurohaptic'14 (MetaReviewer: 5 articles), IROS'14 (1

article), Haptics symposium'14 (MetaReviewer: 8 articles), CHI'13 (1); WHC'13 (3 articles); UIST'12 (2 articles); Eurohaptics'12: (5 articles); Haptics symposium'12 (2 articles); Worldhaptics'11 (3 articles); Eurohaptics'10 (2 articles); IHM'2008 (Conférence Francophone d'Interaction Homme Machine)

(2 articles); ICMI'05 (2 articles); HCI'05 (2 articles)

Meetings, Conferences, and Workshops Organization

Montreal- 2021 Organizing committee (Virtual and Local Arrangement chair), WorldHaptics'21

San Francisco- 2018 Organizing committee (Demo chair), Haptic Symposium'18

Philadelphia - 2016 Organizing committee (Finance chair), Haptic Symposium'16

Chicago - 2015 Organizing committee (Workshop/Tutorial chair), WorldHaptics 2015

Marquette - 2015 Conference organizing committee, UPISR 2015

Houghton - 2014 Conference organizing committee, UPISR 2014

Versailles - 2014 Workshop Organization on Non-Invasive BCI and Haptics – EuroHaptics'14

Organizing committee (Intern. Liaison Chair), Eurohaptics'14

Houston - 2014 Organizing committee (SV chair), Haptic Symposium'14

Daejeon - 2013 Workshop Organization on Haptics and BCI – WorldHaptics'13

Vancouver – 2012 Organizing committee (Student Volunteer Chair), Haptic Symposium'12
 Seattle – 2011 Organizer Chair of the TRG (Tactile Research Group) meeting 2011 in conjunction with the Psychonomic Society meeting
 St. Louis – 2010 Organizer Chair of the TRG (Tactile Research Group) meeting 2010 in conjunction with the Psychonomic Society meeting
 Boston – 2009 Organizer Chair of the TRG (Tactile Research Group) meeting 2009 in conjunction with the Psychonomic Society meeting
 Compiegne - 2004 Organizing committee of ARCo'04 (The ninth colloquium of the Association for the Cognitive Research)

Professional Affiliations

2018 to date **Member** of EPAEG (Ergonomie Psychologische AEsthetik Gestalt) 2015 to date **Member** of Psy Chi 2013 to date Fellow Member of Psychonomic Society 2011 to date **Member** of the Cognitive Neuroscience Society (CNS) **Member** of the TRG (Tactile Research Group) 2008 to date 2007-2017 **Member** of the IEEE Technical Committee on Haptics (TCH) 2016-2017 **Member** of The Institute of Electrical and Electronics Engineers (IEEE) 2015-2017 **Member** of Society of Neuroscience (SfN) **Member** of the Association for Computing Machinery (ACM) 2005-2017 2004-2007 **Member** of the European Project (Enactive) **Member** of the National French Project (TCAN) 2003-2005 Member of TSH (Technology and Human Sciences), UTC 2001-2007 2003-2005 **Member** of ARCo (Association for the Cognitive Research, Compiegne, France)

University Services

Fall12 to Winter19 Member of the Educational Technology Resources and Policy Committee (ETRPC)

2011 – 2018 NMU Faculty search committee
NMU Psychology graduate committee
NMU academic adviser (20 students a semester)

Winter14 - Fall18 Director of the Neuroscience Program

Fall15 – Winter16 Psy Chi Students' Adviser

Fall12 NMU Quality Assurance Director search committee

2002 - 2003 Students' representative at TSH department office, UTC

Research Advising

08.19 – to date Bentley University

3 undergraduate research students, 4 graduate students

08.11 – 12.19 Northern Michigan University

80 undergraduate research students, 10 master students, and 1 postdoc

student

Fall09 - Summer 11 Wilfrid Laurier University

5 undergrad research students and 3 master students

Summer 08 McGill University

2 undergraduate research students

Fall 05 - Spring 06 Compiegne University of Technology

5 undergraduate research students

Computer Skills

Experience with Windows, Linux and Macintosh

• Numerical Analysis with MATLAB, Microsoft Excel, SPSS, Mathematica, R

Surveys: Qualtrics, UserTesting

Database: MS Access 9x/200x

Text editing: MS Word, Latex

 Programming: C/C++, Visual Basic, Java, Netbeans, Matlab, Psychtoolbox, VBA for Excel and Access

- Web: html, css, plone and zone management, FrontPage, SharePoint Designer, Macromedia Dreamweaver
- Imaging/Signal/Vision: Brain Voyager, NeuroScan (Stim and Scan), EGI Geodesics (NetStation and E-Prime), Eye-tracker (iscan), EEGLab, ERPLab, FSL, Homer, STM.
- Other software: Adobe Illustrator, Adobe Photoshop, Adobe Premiere, Corel draw, Corel House, MS Publisher, Macromedia Flash, Cinema 4D, Camtesia Studio.

Webmaster

- **Webmaster** and **administrator** of NMU Psychology Department website: http://psychology.nmu.edu/ website between 2011 and 2015
- □ Webmaster and administrator of TRG (Tactile Research Group) website: http://trg.objectis.net
- Webmaster of ARCo (Association for Cognitive Research) website between 2003 and 2006
- **□ Webmaster** of the website of ARCo'04 (the ninth colloquium of the Association for the Cognitive Research, Compiegne France)

Languages

□ **English:** Advanced, **Arabic:** Native speaker, **French:** Native speaker, **German:** Beginner, **Chinese:** Beginner.