# CAROLINE PALMER VITA

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**CITIZENSHIP:** U.S.A. (Permanent resident status, Canada)

### **EDUCATION:**

Doctor of Philosophy in Cognitive Psychology, August 1988, Cornell University, Ithaca, NY.

Master of Science in Clinical Psychology, October 1984, Rutgers University, NJ.

Bachelor of Science with honors, majors in statistics and psychology, minor in music, May 1981, University of Michigan, Ann Arbor, Michigan.

### **PROFESSIONAL POSITIONS:**

Canada Research Chair (Tier 1), McGill University, 2003 – present (renewed 2010 – 2017).

Professor, Dept. of Psychology, McGill University, 2003 – present.

Director, NSERC-Create Training program in Auditory Cognitive Neuroscience, 2009 – present.

Associate Member, Faculty of Music, McGill University, 2003 – present.

Member, Centre for Research on Brain, Language and Music, McGill University, 2003 – present.

Member, Integrated Program in Neuroscience, McGill University, 2011 – present.

Professor, Dept. of Psychology, Ohio State University, 2002 – 2003.

Associate Professor, Dept. of Psychology, Ohio State University, 1994 – 2002.

Associate Professor, Dept. of Speech and Hearing Science, Ohio State University, 1999 – 2002.

Member, Center for Cognitive Science, Ohio State University, 1992 – 2003.

Assistant Professor, Dept. of Psychology, Ohio State University, 1988 – 1994.

#### SCHOLARSHIPS AND FELLOWSHIPS:

Fellow, Association for Psychological Science, Washington, DC, 2010.

Visiting Scholar, Max Planck Institute, Leipzig, Germany, 2008.

Fellow, Macquarie University, Sydney, Australia, 2007.

Fellow, American Psychological Association, Washington, DC, 2005.

Scholar in Residence, Nijmegen Institute for Cognition and Information, The Netherlands, 1998.

Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, CA, 1993 - 1994.

Fellow, Summer Program in Cognitive Neuroscience, Dartmouth College, 1992.

Scholar in Residence, Queens University, Kingston Ontario, 1992.

Predoctoral Graduate Fellowship, National Science Foundation, 1985 - 1988.

Catlin Memorial Research Fund, Psychology Department, Cornell University, 1987 – 1988.

Psychology Department Research Fund, Cornell University, 1987 – 1988.

Walter C. Russell Fellowship, Rutgers University, 1982 – 1984.

Graduate Scholars Award, Rutgers University, 1982 – 1984.

Music Scholarship, University of Michigan, 1978 – 1979.

University Grant, University of Michigan, 1977 – 1978.

#### EXTERNAL GRANTS AND AWARDS:

Canada Research Chair (Tier 1), "Cognitive neuroscience of performance," 2010 – 2017.

NSERC Discovery Accelerator Award (PI), 2010 – 2014.

Erasmus-Mundus Grant, EU (co-PI), "Auditory cognitive neuroscience," 2014 – 2017.

Erasmus-Mundus Grant, EU (co-PI), "Auditory cognitive neuroscience," 2010 – 2014.

NSERC-Create Grant (PI), "Auditory cognitive neuroscience," 2009 – 2015.

NSERC Discovery Grant (PI), "Memory and motor control in production," 2009 – 2015.

Australian Research Council (co-PI), "Vocal emotional communication," 2009 – 2013.

Canada Foundation for Innovation (co-PI), "Laboratory in Music Neuroscience," 2008 – 2014.

NSERC Equipment Grants (PI), "Motion capture of fine finger movements," 2006 – 2007.

CIHR Operating Grant (co-PI), "Electrophysiological investigations of prosodic processing," 2004 – 2008.

NSERC Discovery Grants (PI), "Memory processes in sequence production," 2004 – 2009.

Canada Foundation for Innovation (PI), "Sequence Production," 2003 – 2007.

Canada Research Chair, "Cognitive neuropsychology of performance," 2003 – 2010.

Ohio State University Academic Enrichment Grant (Co-PI), "Music cognition," 1996 – 2003.

Distinguished Scientific Award for Early Career Contribution in perception and motor performance, American Psychological Association, 1996.

National Institute of Mental Health (PI), R01, "Constraints on cognitive theories of sequence production," 1998 – 2003.

NIH Institutional National Service Award (Consultant): Multidisciplinary Research Training Program in Speech and Hearing Science, 1996 – 2001.

National Science Foundation, Grant toward Fellowship at Center for Advanced Study in the Behavioral Sciences, SES-9022192, 1993 – 1994.

FIRST Award, National Institute of Mental Health (PI), "Constraints on cognitive theories of performance," 1990 – 1996.

### **EDITORIAL CONSULTING:**

## Editorships:

Associate Editor, Music Perception, 1997 – 2011.

### **Editorial Boards:**

Journal of Experimental Psychology: Human Perception & Performance, 1995 – 2011. Music Perception, 1995 – 1997; 2011 – present. Psychology of Music, 1994 – 1996.

### **Grant Panels:**

Member, NSERC Review Panel, Brain, Behavior, and Cognitive Science, 2004 – 2007. Member, NSF Review Panel, Perception, Action and Cognition, 2008 – 2009.

### Reviewer:

Attention, Perception & Psychophysics

Applied Developmental Psychology

Behavior Research Methods, Instruments, Computers

Canadian Journal of Experimental Psychology

Cognition

Cognitive Science

Cognitive Psychology

Experimental Brain Research

Frontiers in Psychology

Journal of Memory and Language

Journal of the Acoustical Society of America

Journal of Cognitive Neuroscience

Neuropsychologia

PLoS One

Perception & Psychophysics

Psychological Research

Psychological Science

Psychonomic Bulletin & Review

NSERC (Canada)

FQRNT (Canada)

National Science Foundation (US)

Canada Foundation for Innovation (Canada)

Economic and Social Research Council (Great Britain)

### PEER-REVIEWED PUBLICATIONS OF PAST 5 YEARS:

- Livingstone, S.R., Thompson, W.F., Wanderley, M.M., & Palmer, C. (in press). Common cues to emotion in the dynamic facial expressions of speech and song. *Quarterly Journal of Experimental Psychology*.
- Maes, P.-J., Palmer, C., & Wanderley, M. (in press). The role of working memory in the temporal control of discrete and continuous movements. *Experimental Brain Research*.
- Palmer, C., Lidji, P., & Peretz, I. (in press). Losing the beat: Deficits in temporal coordination. *Philosophical Transactions: Biological Sciences*.
- Quinto, L.R., Thompson, W.F., Kroos, C., & Palmer, C. (2014). Singing emotionally: A study of pre-production, production, and post-production facial expressions. *Frontiers in Psychology*, *5*, doi: 10.3389/fpsyg.2014.00262.
- Mathias, B., Palmer, C., Perrin, F., & Tillmann, B. (2014). Sensorimotor learning enhances expectations during auditory perception. *Cerebral Cortex*. doi: 10.1093/cercor/bhu030.
- Maes, P.-J., Leman, M., Palmer, C., & Wanderley, M. (2014). Action-based effects on music perception. *Frontiers in Psychology*. 4:1008. doi: 10.3389/fpsyg.2013.01008.
- Brown, R.M., & Palmer, C. (2013). Auditory and motor imagery modulate learning in music performance. *Frontiers in Human Neuroscience*, 7:320. doi: 10.3389/fnhum.2013.00320.
- Brown, R., Chen, J., Hollinger, A., Penhune, V., Palmer, C., & Zatorre, R. (2013). Repetition suppression in auditory-motor regions to pitch and temporal structure in music. *Journal of Cognitive Neuroscience*, 25, 313-328.
- Goebl, W., & Palmer, C. (2013). Temporal control and hand movement efficiency in skilled music performance. *PLoS One* 8: e50901. doi:10.1371/journal.pone.0050901.
- Altenmüller, E., Demorest, S.M., Fujioka, T., Halpern, A.R., Hannon, E.E., Loui, P., Majno, M., Oechslin, M.S., Osborne, N., Overy, K., Palmer, C., Peretz, I., Pfordresher, P.Q., Särkämö, T., Wan, C.Y., & Zatorre, R.J. (2012). Introduction to The Neurosciences and music IV: Learning and memory. *Annals of the New York Academy of Sciences*, 1252, 1-16.
- Brown, R.M., & Palmer, C. (2012). Auditory-motor learning influences auditory memory for music. *Memory & Cognition*, 40, 567-578.
- Livingstone, S.R., Palmer, C., & Schubert, E. (2012). Emotional response to musical repetition. *Emotion*, *12*, 552-567.
- Palmer, C., Mathias, B., & Anderson, M. (2012). Sensorimotor mechanisms in music performance: Actions that go partially wrong. *Annals of the New York Academy of Sciences*, 1252, 181-191.

- Pivneva, I., Palmer, C., & Titone, D. (2012). Inhibitory control and L2 proficiency modulate bilingual language production: Evidence from spontaneous monologue and dialogue speech. *Frontiers in Cognition*, *3*, 57.
- Dalla Bella, S., & Palmer, C. (2011). Rate effects on timing, key velocity, and finger kinematics in piano performance. *PLoS One*, 6:6; e20518. doi: 10.1371.
- Lidji, P., Palmer, C., Peretz, I., & Morningstar, M. (2011). Entrainment to Speech and Song. In A. Williamon, D. Edwards, & L. Bartel (Eds.), *Proceedings of the International Symposium on Performance Science* (pp. 123-128). EAC: Utrecht, The Netherlands.
- Lidji, P., Palmer, C., Peretz, I., & Morningstar, M. (2011). Listeners feel the beat: Entrainment to English and French speech rhythms. *Psychonomic Bulletin & Review*, 18, 1035-1041.
- Livingstone, S., Palmer, C., Wanderley, M.M., Thompson, W.F., & Lissemore, J. (2011). Facial expressions in vocal performance: Visual communication of emotion. In A. Williamon, D. Edwards, & L. Bartel (Eds.), *Proceedings of the International Symposium on Performance Science* (pp. 545-550). EAC: Utrecht, The Netherlands.
- Loehr, J.D., & Palmer, C. (2011). Temporal coordination between performing musicians. *The Quarterly Journal of Experimental Psychology*, 64, 2153-2167.
- Loehr, J.D., Large, E.W., & Palmer, C. (2011). Temporal coordination and adaptation to rate change in music performance. *Journal of Experimental Psychology: Human Perception and Performance*, *37*, 1292-1309.
- Mathias, B., Palmer, C., Pfordresher, P., & Anderson, M. (2011). Effects of meter and serial position on memory retrieval during music performance. In A. Williamon, D. Edwards, & L. Bartel (Eds.), *Proceedings of the International Symposium on Performance Science* (pp. 405-410). EAC: Utrecht, The Netherlands.
- Pfordresher, P.Q., Keller, P.E., Koch, I., Palmer, C., & Yildirim, E. (2011). Activation of learned action sequences by auditory feedback. *Psychonomic Bulletin & Review*, 18, 544-549.
- Phillips-Silver, J., Toiviainen, P., Gosselin, N., Piché, O., Nozaradan, S., Palmer, C., & Peretz, I. (2011). Born to dance but beat deaf: A new form of congenital amusia. *Neuropsychologia*, 49, 961-969.
- Goebl, W., & Palmer, C. (2009). Synchronization of timing and motion among performing musicians. *Music Perception*, 26, 427-438.
- Goebl, W., & Palmer, C. (2009). Finger motion in piano performance: Touch and tempo. In A. Williamon, S. Pretty, & R. Buck (Eds.), *Proceedings of the International Symposium on Performance Science* (pp. 65-70). EAC: Utrecht, The Netherlands.
- Livingstone, S., Schubert, E., Loehr, J.D., & Palmer, C. (2009). Emotional arousal and the automatic detection of musical phrase boundaries. In A. Williamon, S. Pretty, & R. Buck (Eds.), *Proceedings of the International Symposium on Performance Science* (pp. 445-450). EAC: Utrecht, The Netherlands.
- Loehr, J.D., & Palmer, C. (2009). Sequential and biomechanical factors constrain timing and motion in tapping. *Journal of Motor Behavior*, 41, 128-136.
- Loehr, J.D., & Palmer, C. (2009). Subdividing the beat: Auditory and motor contributions to synchronization. *Music Perception*, 26, 415-425.

- Palmer, C., Koopmans, E., Carter, C., Loehr, J.D., & Wanderley, M. (2009). Synchronization of motion and timing in clarinet performance. In A. Williamon, S. Pretty, & R. Buck (Eds.), *Proceedings of the International Symposium on Performance Science* (pp. 159-164). EAC: Utrecht, The Netherlands.
- Palmer, C., Jewett, L.R., & Steinhauer, K. (2009). Effects of context on electrophysiological response to musical accents. *Annals of the New York Academy of Sciences*, 1169. 470-480.
- Palmer, C., Koopmans, E., Loehr, J.D., & Carter, C. (2009). Movement-related feedback and temporal accuracy in clarinet performance. *Music Perception*, *26*, 439-449.

# PEER-REVIEWED PUBLICATIONS UNDER REVIEW:

- Gingras, B., Palmer, C., Schubert, P.N., & McAdams, S. (2014). Influences of expressive intent, texture, salience, and performer individuality on performance errors. *Psychology of Music*. (Submitted).
- Hedger, S., Hogstrom, A., Palmer, C., & Nusbaum, H. (2014). Sleep consolidation of musical competence. *Music Perception*. (Submitted).
- Livingstone, S.R., & Palmer, C. (2014). Head movements encode emotions during speech and song: Visual evidence of a musical protolanguage? *Emotion*. (Submitted).
- Mathias, B., Pfordresher, P.Q., & Palmer, C. (2014). Context and meter enhance long-range planning in music performance, *Frontiers in Human Neuroscience*. (Submitted).
- Schultz, B.G., O'Brien, I., Phillips, N., McFarland, D.H., Titone, D., & Palmer, C. (2014). Speech rates converge in turn-taking conversations between a confederate and naive participants. *Journal of the Acoustical Society of America*. (Submitted).
- Zamm, A., Pfordresher, P.Q., & Palmer, C. (2014). Temporal coordination in joint music performance: Effects of endogenous rhythms and auditory feedback. *Experimental Brain Research*. (Submitted).

### **BOOK CHAPTERS OF PAST 5 YEARS:**

- Palmer, C., & Loehr, J.D. (2013). Meeting of two minds in duet piano performance. In L. Bernstein and A. Rozin (Eds.), *Musical implications: Essays in honor of Eugene Narmour* (pp. 323-338). Hillsdale, NY: Pendragon Press.
- Palmer, C. (2013). Music performance: Movement and coordination. In D. Deutsch (Ed.), *Psychology of music* (3rd ed; pp.405-422). Amsterdam: Elsevier.

## **PUBLISHED ABSTRACTS OF PAST 5 YEARS:**

- Palmer, C., Spidle, F., Koopmans, E., & Schubert, P. (2013). Temporal coordination in musical ensembles: Influence of group roles and individual differences. *Abstracts of the Psychonomic Society*, Toronto, November, p. 34.
- Zamm, A., Palmer, C., & Pfordresher, P. (2013). Temporal coordination in music ensemble performance: Probing forward models. *Abstracts of the Psychonomic Society*, Toronto, November, p. 195
- Palmer, C., Lidji, P., Peretz, I. (2012). Losing the beat: Adaptation to temporal perturbations, *Abstracts of the Psychonomic Society*, Minneapolis, November, p. 33.
- Brown, R. M., Tikasz, A., & Palmer, C. (2012). Auditory and motor imagery abilities influence music learning, *Abstracts of the Psychonomic Society*, Minneapolis, November, p. 134.

- Mathias, B., Palmer, C., Perrin, F., & Tillmann, B. (2012). Motor experience affects neural responses to perceived music. *Abstracts of the Psychonomic Society*, Minneapolis, November, p. 199.
- Lidji, P., Palmer, C., Morningstar, M. & Peretz, I. (2012). Effects of synchronization, rhythm and melody on aphasics' productions. *Journal of Cognitive Neuroscience*, p. 98.
- Mathias, B., Palmer, C., Pfordresher, P. Q., & Anderson, M. F. (2011). Context effects on serial recall of music. *Abstracts of the Psychonomic Society*, Seattle, November, p. 115.
- Livingstone, S. R., Palmer, C., Wanderley, M., & Thompson, W. F. (2011). Rapid identification of emotional expression in faces. *Abstracts of the Psychonomic Society*, Seattle, November, p. 140.
- Brown, R., Chen, J., Hollinger, A., Penhune, V., Palmer, C., & Zatorre, R. (2010). Premotor activity in auditory-motor integration during music performance. *J Neuroscience Program No. 170.6*, San Diego, CA: Society for Neuroscience.
- Lidji, P., Morningstar, M., Peretz, I., & Palmer, C. (2010). Coordinating speech and tapping: Effect of rhythmic structure. *Journal of Cognitive Neuroscience*, *D37*.
- Brown, R., Chen, J., Hollinger, A., Penhune, V., Palmer, C., & Zatorre, R. (2010). Behavioral and neural basis for auditory-motor interactions in music performance. *Journal of Cognitive Neuroscience*, D41.
- Livingstone, S. R., Palmer, C., Wanderley, M.M., & Thompson, W. F. (2010). Facial expressions in speech and singing. In M.M. Wanderley, J.Wild, & S.X. Wei (Eds.), *International Conference on Music and Gesture* (pp.9-10). Montreal: McGill.
- Hutchins, S., Palmer, C., & Steinhauer, K. (2009). Repetition priming in music: An ERP study. *Journal of Cognitive Neuroscience*, H55.

### **SELECTED INVITED TALKS OF PAST 5 YEARS:**

- Palmer, C. (2014). Listening, imagining, and performing: A life cycle of musical thought. Keynote talk at Milestones in Music Cognition Symposium, Montreal, July.
- Palmer, C. (2014). Auditory-motor integration in ensemble music performance. Keynote talk at International Seminar on Speech Production Conference, Cologne, Germany, May.
- Palmer, C. (2014) Playing well together: The science of temporal coordination among musicians. Vanier College, Montreal, March.
- Palmer, C. (2014) Playing well together: The science of temporal coordination among performing musicians. Mini-Science series, Faculty of Science, McGill University, March.
- Palmer, C. (2014). Sensorimotor coordination in musical ensembles. Faculty of Science, McGill University, January.
- Palmer, C. (2013). Coordinating actions and sounds in group music performance. Euromov Motion capture workshop, Montpellier, France, May.
- Palmer, C. (2013). Musical talent: Practice is not everything. Symposium on "What is musical talent?" University of Montreal, January.
- Palmer, C. (2012). Temporal dynamics of auditory-motor integration in music performance. Symposium, Cognitive Neuroscience Meeting, Chicago, March.

- Palmer, C. (2012). Conveying emotional prosody in music and speech. Sensory Network Workshop, Toronto, May.
- Palmer, C. (2012). Connecting movement to sound: Performer response in ensembles. CIRMMT symposium, Montreal, March.
- Palmer, C. (2011). Prosody in a musical context: Comparisons of emotional prosody in song and speech. Experimental and Theoretical Advances in Prosody, Montreal, September.
- Palmer, C., & Loehr, J. (2011). Sensorimotor integration in solo and duet performance, International Symposium on Performance Science, Toronto, August.
- Palmer, C. (2011). Contextual influences on performers' memory retrieval processes. The Neurosciences and Music IV, Edinburgh, Scotland, June.
- Palmer, C. (2011). Temporal coordination by performing musicians. Colloquium, University of Chicago, May.
- Palmer, C. (2010). It takes two to tango: Synchronization in ensemble performance. Cognitive Science Colloquium, University of British Columbia, Vancouver, Dec.
- Palmer, C. (2010). Sensorimotor integration in music performance. Colloquium, Cognitive Science Research Day, McGill University, Sept.
- Palmer, C. (2010). Sensorimotor integration in music performance. Cognitive Neuroscience Meeting, Satellite Workshop in Auditory Cognitive Neuroscience, Montreal, August.
- Palmer, C. (2009). Sensory feedback in music performance. Society for Music Theory meeting, Symposium on Empirical Methods, Montreal, Nov.
- Palmer, C. (2009). Sensorimotor integration. Auditory Cognitive Neuroscience Workshop, Montreal, August.
- Palmer, C. (2009). Coordination in music performance. International Congress on Music Physiology and Musicians' Medicine, Freiburg, Germany, March.

## **SELECTED PRESENTATIONS OF PAST 5 YEARS:**

- Mathias, B., Tillmann, B., & Palmer, C. (2014). Tonal hierarchies and performance experience modulate neural responses to expectancy violations in melodies: Evidence from event-related potentials. Presented at Milestones in Music Cognition Symposium, Montreal, July.
- Demos, A.P., Palmer, C., Wanderley, M.M., & Dixon, R. (2014). Auditory Feedback Perturbations Affect Duet Music Performance. 24<sup>th</sup> Canadian Society for Brain, Behaviour and Cognitive Science, Toronto, July.
- Mathias, B., Palmer, C., & Tillmann, B. (2014). Auditory-motor learning modulates memory-based expectations during auditory perception, 24<sup>th</sup> Canadian Society for Brain, Behaviour and Cognitive Science, Toronto, July.
- Palmer, C., Spidle, F., Koopmans, E., & Schubert, P. (2014). Playing well together: Predicting musical coordination from individual and joint timekeeping abilities. 24<sup>th</sup> Canadian Society for Brain, Behaviour and Cognitive Science, Toronto, July.
- Zamm, A., Wellman, C., & Palmer, C. (2014). Role of endogenous rhythms and motor familiarity in timing of duet music performance. 24<sup>th</sup> Canadian Society for Brain, Behaviour and Cognitive Science, Toronto, July.

- Brown, R., Segura, A., & Palmer, C. (2014). Contributions of domain-specific and domain-general cognitive abilities to learning for skilled performers, The Neurosciences and Music Conference V, Dijon, France, May.
- Schultz, B., O'Brien, I., Philips, N., McFarland, D., Titone, D., & Palmer, C. (2014). Interlocutors' speech rates converge: Effects of fast and slow confederate speech rates, Interpersonal Coordination and Phonetic Convergence Workshop, Cologne, Germany, May.
- Zamm, A., Pfordresher, P., & Palmer, C. (2014). Temporal coordination in music ensemble performance. Erasmus Mundus Auditory Cognitive Neuroscience Network Meeting, Leipzig, Germany, April.
- Maes, P.-J., Palmer, C., & Wanderley, M.M. (2013). Timing control of discrete and continuous movements in cello playing. Auditory Perception, Cognition and Action Meeting, Toronto, November.
- Schultz, B.G., O'Brien, I., Philips, N., McFarland, D., Titone, D., & Palmer, C. (2013).
  Convergence in speech rate in scripted dialogues: Confederate influences the speech rate of naive participants. Auditory Perception, Cognition and Action Meeting, Toronto, November.
- Zamm, A., Palmer, C., & Pfordresher, P. (2013). Temporal coordination in music ensemble performance. Annual Scientific Day of the Centre for Research in in Brain, Language, and Music, Montreal, November.
- Brown, R.M., Segura, A., & Palmer, C. (2013). Differential influences of imagery abilities on music encoding and retrieval. Society for Music Perception and Cognition, Toronto, August.
- Mathias, B., Tillman, B., Ilnyckyj, S., & Palmer, C. (2013). Interaction of sensorimotor and pitch-based influences on melody recognition: Evidence from event-related potentials. Society for Music Perception and Cognition, Toronto, August.
- Zamm, A., Palmer, C., & Pfordresher, P. (2013). Temporal coordination in piano duet performance of musical rounds. Society for Music Perception and Cognition, Toronto, August.
- Zamm, A., Palmer, C, & Pfordresher, P. (2013). Temporal coordination in piano duet performance of musical rounds. Auditory Cognitive Neuroscience Workshop, Hamilton, Ontario, August.
- Koopmans, E., Palmer, C., & Spidle, F. (2013). Postural sway in vocal duets. Stockholm Music Acoustics Conference, Stockholm, August.
- Palmer, C., Spidle, F., Koopmans, E., & Schubert, P. (2013). Temporal coordination in vocal duet performances of musical rounds. Stockholm Music Acoustics Conference, Stockholm, August.
- Palmer, C., Koopmans, E., & Spidle, F. (2013). Postural sway in performing vocal duets: Effects of visual and acoustic cues. Progress in Motor Control, Montreal, July.
- Pfordresher, P., Palmer, C., Dalla Bella, S., & Kraus, B. (2012). Delayed auditory feedback and movement, revisited: Bimanual versus unimanual coordination. Auditory Perception, Cognition and Action Meeting, Minneapolis, Nov.
- Brown, R.M., Tikasz, A., & Palmer, C. (2012). Auditory-motor learning and influences of mental imagery. Auditory Cognitive Neuroscience Workshop, Montreal, QC, August.

- Goebl, W., & Palmer, C. (2012). Examining finger-wrist joint-angle structure in piano playing with motion-capture technology. International Conference on Music Perception and Cognition, Thessaloniki, Greece, July.
- Palmer, C., Lidji, P., & Peretz, I. (2012). Pulse and the role of intrinsic frequency in temporal adaptation. Perspectives on Rhythm and Timing Workshop, Glasgow, July.
- Palmer, C., Lidji, P., & Peretz, I. (2012). Keeping the beat: Temporal dynamics of beat-deafness. Brain, Behavior and Cognitive Science conference, Kingston, June.
- Mathias, B., Palmer, C., Perrin, F., & Tillman, B. (2012). Motor learning influences error perception in music: Evidence from event-related potentials. Brain, Behavior and Cognitive Science conference, Kingston, June.
- Brown, R.M., Tikasz, A., & Palmer, C. (2012). Auditory and motor imagery abilities influence music learning. BRAMS Scientific Day, Montreal, May.
- Livingstone, S.R., Palmer, C., Wanderley, M., & Thompson, W. F. (2011). The temporal coordination of facial motion and vocal affect. Auditory Perception, Cognition and Action Meeting, Seattle, WA, November.
- Livingstone, S.R., Palmer, C., Wanderley, M., & Thompson, W.F. (2011). Temporal coordination of facial expressions in vocal performance. Brain, Perception, and Cognition Research Group, Ryerson University, Toronto, October.
- Livingstone, S.R., Palmer, C., Wanderley, M., & Thompson, W.F. (2011). Production and perception of facial expressions during vocal performance. Psychology research symposium (PGSA), Ryerson University, Toronto, October.
- Livingstone, S.R., Palmer, C., Wanderley, M., & Thompson, W.F. (2011). Temporal coordination of facial expressions in vocal performance. CIRMMT, McGill University, Montreal, September.
- Livingstone, S.R., Palmer, C., Wanderley, M., & Thompson, W.F. (2011). Production and perception of facial expressions during vocal performance. Society for Music Perception and Cognition, Rochester, NY, August.
- Brown, R.M., & Palmer, C. (2011). Effects of motor learning on auditory memory for music. Society for Music Perception and Cognition, Rochester, NY, August.
- Mathias, B., Anderson, M., Palmer, C., & Pfordresher, P. (2011). Sequence context affects memory retrieval in music performance. Society for Music Perception and Cognition, Rochester, NY, August.
- Brown, R.M., & Palmer, C. (2011). Influences of auditory and motor practice on auditory memory for music. The Neurosciences and Music IV, Edinburgh, Scotland, June.
- Lidji, P., Palmer, C., Morningstar, M., Zumbansen, A., & Peretz, I. (2011). Entrainment to speech and song in healthy and aphasic participants. The Neurosciences and Music IV, Edinburgh, Scotland, June.
- Lidji, P., Palmer, C., Peretz, I., & Morningstar, M. (2010). Synchronization with English and French speech rhythms. Psychonomic Society Meeting, St. Louis, Nov.
- Livingstone, S.R., Palmer, C., Wanderley, M., & Thompson, W.F. (2010). Facial expression in song and speech. Auditory Perception, Cognition and Action Meeting, St. Louis, Nov.

- Mathias, B., Palmer, C., Pfordresher, P.Q., & Anderson, M. (2010). Effects of context on serial-ordering errors in music performance. Auditory Perception, Cognition, and Action Meeting, St. Louis, Nov.
- Goebl, W., & Palmer, C. (2010). Analyzing finger motion in piano performance: Touch and tempo effects. University of Music and Performing Arts, Vienna, Sept.
- Brown, R., Chen, J., Hollinger, A., Penhune, V., Palmer, C., & Zatorre, R. (2010). Neurological and behavioral basis for auditory-motor transformations in music performance. International Conference on Music Perception and Cognition, Seattle, August.
- Livingstone, S. R., Schubert, E., Loehr, J. D., & Palmer, C. (2010). Effects of repetition and phrase structure on emotional arousal. International Conference on Music Perception and Cognition, Seattle, August.
- Loehr, J.D., & Palmer, C. (2010). Temporal coordination in duet performance. International Conference on Music Perception and Cognition, Seattle, August.
- Brown, R., & Palmer, C. (2009). Auditory-motor integration affects auditory memory for music. Psychonomic Society Meeting, Boston, Nov.
- Lidji, P., Peretz, I., Shenker, J., & Palmer, C. (2009). Monolinguals' sensitivity to rhythm in monolingual and bilingual French and English. Auditory Perception, Cognition and Action Meeting, Boston, November.
- Loehr, J.D., Pillay, R., & Palmer, C. (2009). Shared representations in joint music performance. Psychonomic Society Meeting, Boston, Nov.
- Palmer, C., & Goebl, W. (2009). Interpersonal coordination among performing musicians. Joint Action Meeting, Amsterdam, Netherlands, July.
- Loehr, J.D., Pillay, R., & Palmer, C. (2009). Action representations in joint music performance. Joint Action Meeting, Amsterdam, Netherlands, July.
- Loehr, J.D., Large, E. W., & Palmer, C. (2009). Temporal coordination in piano performance: Adaptation to tempo change. Rhythm Perception and Production Workshop, Lille, July.
- Brown, R.M., Trivisonno, M., & Palmer, C. (2009). Effects of auditory-motor integration on memory for music. BRAMS Annual Scientific Day, Montreal, May.
- Livingstone, S.R., Loehr, J.D., Palmer, C., & Schubert, E. (2009). Emotional arousal corresponds with musical phrase structure. BRAMS Annual Scientific Day, Montreal, May.
- Loehr, J.D., Palmer, C., & Large, E.W. (2009). Phase and period coupling in pianists' synchronization with a changing tempo. New England Sequencing and Timing (NEST) Meeting, New Haven, Connecticut, March.

# ORGANIZED SYMPOSIA AND WORKSHOPS OF PAST 5 YEARS:

- Palmer, C. (2014). Sixth annual training workshop in auditory cognitive neuroscience. NSERC-Create, Montreal, QC, August.
- Palmer, C. (2014). Symposium on Conjoint cognition: How the presence of others affects cognition. Brain, Behavior, and Cognitive Science conference, Toronto, July.
- Palmer, C. (2014). Interviewing skills for neuroscience students. Montreal, July.
- Palmer, C. (2014) Resume building skills for auditory cognitive neuroscience students. Montreal, June.

- Palmer, C. (2013). Fifth annual training workshop in auditory cognitive neuroscience. NSERC-Create, Hamilton, Ont, August.
- Palmer, C. (2013). Interviewing skills for neuroscience students. Montreal, July.
- Palmer, C. (2013). Resume building skills for auditory cognitive neuroscience students. Montreal, June.
- Palmer, C. (2012). Symposium on auditory cognitive neuroscience. Integrated Program in Neuroscience Retreat, Montreal, Sept.
- Palmer, C. (2012). Fourth annual training workshop in auditory cognitive neuroscience. NSERC-Create, Montreal, QC, August.
- Palmer, C. (2012). Interviewing skills for neuroscience students. Montreal, July.
- Palmer, C. (2012) Resume building skills for auditory cognitive neuroscience students. Montreal, June.
- Palmer, C. (2011). Third annual training workshop in auditory cognitive neuroscience. NSERC-Create, Montreal, August.
- Palmer, C. (2011). Symposium on Multimodal models of music performance. International Symposium on Performance Science, Toronto, August.
- Palmer, C. (2011). Interviewing skills for neuroscience students. Montreal, July.
- Palmer, C. (2011). Symposium on Neuroscience of Performance, Music and Neurosciences Conference, Edinburgh, June.
- Palmer, C. (2010). Second annual training workshop in auditory cognitive neuroscience. NSERC-Create, Hamilton, Ont, August.
- Palmer, C. (2010). Statistical techniques for image analysis methods. Montreal, May.
- Palmer, C. (2009). First annual training workshop in auditory cognitive neuroscience. NSERC-Create, Montreal, August.

## PROFESSIONAL OFFICERSHIPS AND MEMBERSHIPS:

- Network for Sensory Research, University of Toronto (Scientific Advisory Board member, 2011-present).
- International Association for the Study of Attention and Performance (Member, Advisory Council, 1999 -2008).
- Int. Symposium on Performance Science (Member, Scientific Committee, 2008 present).
- Int. Conf. Music Perception and Cognition (Member, Scientific Advisory Committee, 1997–1998).
- Society for Music Perception and Cognition (Secretary/Treasurer, 1997-1999; Member, Executive Board, 2004 2008).

Acoustical Society of America (Member, Technical Program Committee).

American Psychological Association (Member).

American Psychological Association, Early Career Award Committee (Member).

American Psychological Society (Member).

Canadian Society for Brain, Behaviour and Cognitive Science (Member).

Psychonomic Society (Member).

## **TEACHING EXPERIENCE:**

Psychology 744, Theories of Working Memory, 2006.

Psychology 529, Psychology of Music, 2003-present.

Psychology / Philosophy / Linguistics / Computer and Information Sciences 612, Introduction to Cognitive Science, 1989 - 2002.

Psychology 794, Cognitive Bases of Sequence Production, 1998.

Psychology 783, Undergraduate Research Methods, 1989 - 2001, 2006.

Psychology 811c, Theories of Temporal Sequencing, 1993.

Psychology 811e, Graduate Research Methods, 1997, 2001.

Psychology 811f, Graduate Seminar in Music Cognition, 1998, 1999, 2000.

Psychology 814, Psychological Issues in Knowledge Representation, 1989, 1991, 1999, 2002

Psychology 811a, Music Cognition, 1990, 1993, 1995, 2002.

Psychology 811e, Cognitive Psychology, 1996, 1998.

Psychology 482, Research Ethics in Psychology, 2005-present.

Psychology 214, Introduction to Cognitive Psychology, 1987.

Psychology 101, Introduction to Psychology, 1984.

### **ADVISING:**

Advisor of Undergraduate Research; 1988-present (35 students)

Advisor of Masters Research: 1988-present (17 students)

Advisor of Doctoral Research: 1988-present (12 students)

Advisor of Postdoctoral Research 1999-present (6 postdocs).

### POSTGRADUATE POSITIONS OF STUDENTS:

Maxwell Anderson. Application Developer, ThoughtWorks, Canada.

Danielle Brink. Assistant Professor, Ohio State University, USA.

Rachel Brown. Postdoctoral Scholar, Concordia University, Canada.

Christine Capota. Digital Media Analyst, Sesame Workshop, USA.

Michael Collicutt. Environmental Acoustics Specialist, SNC-Lavalin, Canada.

Simone Dalla Bella. Professor, University of Montpellier, France.

Carolyn Drake. Senior Researcher, CNRS, University of Paris, France.

Steven Finney. Firmware Engineer, Spirent Communications, USA.

Werner Goebl. Assistant Professor, Musical Acoustics, U. of Music and Performing Arts, Austria.

Sean Hutchins. Director of Research, Royal Conservatory of Music, Canada.

Melissa Jungers. Associate Professor, Ohio State University, USA.

Edward Large. Professor, University of Connecticut, USA.

Pascale Lidji. Neuropsychologist, Centre Neuropsychology Evaluation, Montreal, Canada.

Steven Livingstone. Postdoctoral Fellow, Ryerson University, Toronto, Canada.

Janeen Loehr. Assistant Professor, University of Saskatchewan, Canada.

Rosalee Meyer. Principal Research Scientist, Battelle Memorial Institute, USA.

Michele Morningstar. Graduate Student, Psychology, McGill University.

Irena O'Brien. Research Associate, University of Quebec at Chicoutimi, Canada.

Peter Pfordresher. Associate Professor, University at Buffalo, USA

Zachary Schendel. Senior Research Scientist, Unilever Corp., USA.

Jake Shenker. Research Coordinator, Douglas Hospital Research Centre, Montreal, Canada.

Brent Stansfield. Assistant Professor, Medical School, University of Michigan, USA.

Timothy Walker. Associate Professor, Ohio Dominican University, USA.