

# ALEXANDER P. DEMOS

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## CURRENT POSITION

2015 - Present      Visiting Assistant Professor  
**University of Illinois at Chicago**, Department of Psychology

## EDUCATION

2013-2015      NSERC-Create Post-Doctoral fellowship  
**McGill University**, Montreal, Canada

PhD              **University of Connecticut**, Storrs, CT  
August 2013      Perception, Action, and Cognition

MA                **New York University**, New York, NY  
September 2006      Cognitive Psychology

BA                **New York University**, New York, NY  
September 2003      Major: Psychology  
                         Minors: Chemistry and Biology

## PROFESSIONAL WORK EXPERIENCE

2004 – 2008      Research Associate - *Applied Psychometrics*  
**Professional Examination Service**, New York, NY.  
Department of Research and Development

## TEACHING EXPERIENCE

### GRADUATE – COURSE INSTRUCTOR

<b>Courses Titles</b>	<b>University</b>	<b># of Classes</b>	<b>Year(s)</b>
<i>Research Design and Analysis I</i> [ANOVA]	University of Illinois at Chicago	2	2015-2016
<i>R-programming</i>	University of Illinois at Chicago	2	2016, 2017
<i>Research Design and Analysis II</i> [Regression]	University of Illinois at Chicago	1	2017

### UNDERGRADUATE – COURSE INSTRUCTOR

<b>Courses Titles</b>	<b>University</b>	<b># of Classes</b>	<b>Year(s)</b>
<i>Statistics</i>	University of Illinois at Chicago	3	2015-2017
<i>Research Methods</i>	University of Illinois at Chicago	1	2016
<i>Statistics/Research Methods</i>	University of Connecticut	7	2009-2013
<i>Cognitive Psychology</i>	University of Connecticut	1	2011
<i>Music Cognition</i>	University of Connecticut	1	2011
<i>Introduction to Psychology</i>	University of Connecticut	1	2012
<i>Statistics</i>	Barnard College, Columbia University	2	2007-2008

## AWARDS

2014-2015: NSERC Create - *Auditory Cognitive Neuroscience*: Post-doctoral Grant  
Project: The Dynamics of Sensorimotor Synchronization of Expressive Ensemble Performance

2013-2014: NSERC Create - *Auditory Cognitive Neuroscience*: Post-doctoral Grant  
Project: Sensorimotor Synchronization of Ensemble Performance: A Perturbation Approach

**PEER REVIEWED PUBLICATIONS**

- Demos, A.P.**, Carter, D.J., Wanderley, M.M., & Palmer, C (2017). The unresponsive partner: Roles of social status, auditory feedback, and animacy in coordination of joint music performance. *Frontiers in Psychology*, 8:149. doi:10.3389/fpsyg.2017.00149.
- Demos A.P.**, Chaffin, C., & Logan, T. (2017). Musician's body movements embody musical structure and expression: A dynamical systems approach. *Musicae Scientiae, advanced online*.
- Demos, A.P.**, Lisboa, T, & Chaffin, R. (2016). Flexibility of Expressive Timing in Repeated Musical Performances. *Frontiers in Psychology*, 1490(7).
- Demos, A.P.**, & Chaffin, R., & Kant, V. (2014). Towards a dynamical systems theory of music performance. *Frontiers in Psychology*, 477(5).
- Lisboa, T., Chaffin, R. & **Demos, A.P.** (2014). Recording thoughts while memorizing music: a case study. *Frontiers in Psychology*, 1561(5).
- Demos, A.P.**, Chaffin, R., Begosh, K. T., Daniels, J. R., & Marsh, K. L. (2012). Rocking to the beat: Effects of music and partner's movements on spontaneous interpersonal coordination. *Journal of Experimental Psychology: General*, 141(1), 49-53.
- Ginsborg, J., Chaffin, R., & **Demos, A.P.** (2012). Different roles for prepared and spontaneous thoughts: A practice-based study of musical performance from memory. *Journal of International Music Studies*, 6, 201-231.

**MANUSCRIPTS UNDER REVIEW**

- Motyl, M., **Demos, A.P.**, Carsel, T., Hanson, B.E., Melton, Z., Mueller, A., Prims, J., Sun, J., Washburn, A.N., Wong, K., Yantis, C., & Skitka, L. J. (*Accepted, pending revision*). The State of Social and Personality Science: Rotten to the Core, Not so Bad, Getting Better, or Getting Worse? *Journal of Personality and Social Psychology*.
- Demos, A.P.**, & Chaffin, C. How Music Moves Us: Entraining to Musicians' Movements.

**BOOK CHAPTERS**

- Demos, A.P.**, & Chaffin, R. (*in press*). Removing obstacles to the analysis of movement in musical performance: Recurrence, mixed models, and surrogates. In M. Lesaffre, P-J. Maes & M. Leman (Eds). *The Routledge Companion to Embodied Music Interaction*. Routledge, New York, NY.
- Chaffin, R., **Demos, A.P.**, & Logan, T. (2016). Performing from memory. In S. Hallam, I. Cross, & M. Thaut (Eds.), *The Oxford Handbook of Music Psychology, 2<sup>nd</sup> Ed.*, (pp. 359-371). Oxford: Oxford University Press.
- Demos, A.P.**, & Chaffin, R. (2014). Body movements. In W. Thompson (Ed.), *Music in the social and behavioral sciences: An encyclopedia*. (Vol. 2, pp. 145-148). Thousand Oaks, CA: SAGE Publications, Inc.

**MANUSCRIPTS IN PREPARATION**

- Demos, A.P.**, Motyl, M., & Skitka, L. J. Estimating Replicability through Simulation: Failures of power analysis from biased effect-size estimates.
- Demos, A.P.**, Layeghi, H., Wanderley, M.M., & Palmer, C. Doubly anticipated systems: Bidirectional discrete dynamical systems model of dyadic synchronization.
- Demos, A.P.**, Del Tufo, S.N., Marsh, K.L., Theodore, R. & Chaffin, R. Spontaneous interpersonal synchronization in dyslexia.

Chaffin, R., Ginsborg, J., & **Demos, A.P.**, & Dixon, J. Musical structure as a hierarchical retrieval organization: Serial position effects in memory for performed music.

Zamm, A., Palmer, C., Bauerb, A-K.R, Bleichner, M.G., **Demos, A.P.**, & Debener, D. Electrophysiological signatures of musicians' spontaneous movement frequencies captured with wireless EEG.

#### TECHNICAL REPORTS & REVIEWS

Chaffin, R., & **Demos, A.P.** (2012). Review of 'Psychology of music: From sound to significance'. *Psychomusicology: Music, Mind, and Brain*, 22(1), 55-56.

Roth, J., Somma, R., Greenberg, S. & **Demos, A.P.** (2006). Developing and Implementing a Certification Program to Drive Change in the Pharmaceutical Industry. *Pharmaceutical Engineering*, May/June 2006.

#### CONFERENCE PROCEEDINGS

Chaffin, C., Gerling, C., **Demos, A.P.**, & Melms, A. (2013). Theory and practice: A case study of how Schenkerian analysis shaped the learning of Chopin's Barcarolle. In by A. Williamon, D. Edwards, & W. Goebel (Eds.), *Proceedings of the International Symposium on Performance Science 2013*. Brussels, Belgium. European Association of Conservatoires.

Ginsborg, J., Chaffin, C., **Demos, A. P.**, & Nicholson, G. (2013). Reconstructing Schoenberg: Rehearsing and performing together. In by A. Williamon, D. Edwards, & W. Goebel (Eds.), *Proceedings of the International Symposium on Performance Science 2013*. Brussels, Belgium. European Association of Conservatoires.

Lisboa, T., Chaffin, C., **Demos, A.P.**, & Gerling, C. (2013). Flexibility in the use of shared and individual performance cues in duo performance. In by A. Williamon, D. Edwards, & W. Goebel (Eds.), *Proceedings of the International Symposium on Performance Science 2013*. Brussels, Belgium. European Association of Conservatoires.

Lisboa, T., Chaffin, C., & **Demos, A.P.** (2013). Recording thoughts as an aid to memorization: A case study. In by A. Williamon, D. Edwards, & W. Goebel (Eds.), *Proceedings of the International Symposium on Performance Science 2013*. Brussels, Belgium. European Association of Conservatoires.

Lisboa, T., Chaffin, R., **Demos, A.P.**, & Aufegger, L. (2012). Preparing memorised performance: The transition between childhood and expertise. In by J. Weller, *Proceedings of the 19th International Seminar of the Commission for the Education of the Professional Musician (CEPROM)*. Athens, Greece.

**Demos, A.P.**, Frank, T., & Chaffin, R. (2011). Understanding movement during performance: A recurrence quantization approach. In by A. Williamon, D. Edwards, & L. Bartel (Eds.), *Proceedings of the International Symposium on Performance Science 2011*. Utrecht, The Netherlands. European Association of Conservatoires.

Shaw, A., **Demos, A.P.**, Arthur, D., & Magnuson, J.S. (2011). Individual differences and lexical learning: Links to memory for faces, things and words. In L. Carlson, C. Hoelscher, & T.F. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 3343-3348). Austin, TX: Cognitive Science Society.

**Demos, A.P.**, Chaffin, R. & Marsh, K.L. (2010). Spontaneous vs intentional entrainment to a musical beat. In *Proceedings of the 11th International Society for Music Perception and Cognition*. Adelaide, Australia: Casual Productions.

Chaffin, R., **Demos, A.P.**, & Crawford, M. (2009). The PC-survey: How does the use of performance cues vary across musicians, instruments, musical styles, and performances? In *Proceedings of the International*

*Symposium on Performance Science 2009* (pp. 57-62). Utrecht, The Netherlands: European Association of Conservatoires.

Chaffin, R., **Demos, A.P.**, & Crawford, M. (2009). Sources of variation in musicians' use of performance cues. In *Proceedings of the 2nd International Conference on Music Communication Science* (pp. 109 – 112). University of Western Sydney: HCSNet

Aiello, R., Aaronson, D., & **Demos, A.P.** (2006). Individual Differences in Music Perception. In: M. Baroni, A. R. Addressi, R. Caterina, M. Costa (Eds.), *Proceedings of the 9th International Conference on Music Perception & Cognition* (pp.1226-1232). Bologna, Italy.

Aiello, R., Aaronson, D., & **Demos, A.P.** (2004). Musicians' Perceptions of Musical Boundaries. In S.D. Lipscomb, R. Ashley, R.O. Gjerdingen, & Webser (Eds.), *Proceedings of the 8th International Society for Music Perception and Cognition* (pp.681-685). Adelaide, Australia: Casual Productions.

#### CONFERENCE PRESENTATIONS

**Demos, A.P.**, Laeghi, H., & Palmer, C. (2016, November). A mutual adaptation model of joint action in music performance. 14<sup>th</sup> Auditory, Perception, Cognition, and Action Meeting (APCAM),

Zamm, A., Palmer, C., Bauer, A.K., Bleichner, M.G., **Demos, A.P.**, Debener, S. (2016, November). Behavioral and electrophysiological bases of interpersonal synchrony during joint music performance. Meeting of the Psychonomic Society, Boston, Massachusetts, USA.

**Demos, A.P.**, Chaffin, R., & Logan, T. (2016, July). *Bobbing, Weaving, and Gyrating: Musician's Sway Reflects Musical Structure*. The 14<sup>th</sup> International Conference on Music Perception and Cognition (ICMPC). San Francisco, CA.

Chaffin, R., & **Demos, A.P.** (2016, July). *Effects of performance cues on expressive timing*. The 14<sup>th</sup> International Conference on Music Perception and Cognition (ICMPC). San Francisco, CA.

Lisboa, T., **Demos, A.P.**, Begosh, K., & Chaffin, R., (2016, July). How Music Moves Us: Entraining to Musicians' Movements. The 14<sup>th</sup> International Conference on Music Perception and Cognition (ICMPC). San Francisco, CA.

Ginsborg, J., Chaffin, R., **Demos, A.P.**, & Dixon, J., (2016, July). *Musical structure as a hierarchical retrieval organization: Serial position effects in memory for performed music*. The 14<sup>th</sup> International Conference on Music Perception and Cognition (ICMPC). San Francisco, CA.

Schultz, B.G., **Demos, A.P.**, & Schutz, M. (2016, July). *The Wave Transformation: A method for analyzing spontaneous coordination from discretely generated data*. The 14<sup>th</sup> International Conference on Music Perception and Cognition (ICMPC). San Francisco, CA.

Zamm, A., Palmer, C., Bauer, A-K R., Bleichner, M. G., **Demos, A.P.**, & Stefan, D. (2016, April). Neural correlates of endogenous rhythms in performing musicians. 23<sup>st</sup> Cognitive Neuroscience Society (CNS), New York, NY.

**Demos, A.P.**, Del Tufo, S., Marsh, K.L., & Theodore, R. & Chaffin, R. (2015, November). *Intentional and Spontaneous Interpersonal Synchronization in Dyslexia*. 13<sup>th</sup> Auditory, Perception, Cognition, and Action Meeting (APCAM), Chicago, IL.

**Demos, A.P.**, Wanderley, M.M., & Palmer, C. (2015, November). *Auditory Feedback Perturbations Disrupt Synchrony in Ensemble Music Performance*. The Psychonomic Society Annual Meeting, Chicago, IL.

Zamm, A., Palmer, C, Bauer, A-K.R, Bleichner, M. G., **Demos A.P.**, & Debener, S. (2015, October). *Neural correlates of endogenous rhythms during music performance*. Tenth anniversary symposium of the international laboratory for Brain, Music, and Sound Research. Montreal, Canada.

- Lisboa, L., **Demos, A.P.**, & Chaffin, R. (2015, August). *Spontaneity in performance: Effects of thinking on expressive variation in tempo*. International Symposium on Performance Science 2015. Kyoto, Japan.
- Demos, A.P.**, Spidle, F., Koopmans, E. & Palmer, C. (2015, August). *Postural coordination between duet vocalists*. Society of Music Perception and Cognition. Nashville, TN.
- Demos, A.P.**, Wanderley, M.M., & Palmer, C. (2015, August). *Comparisons of action simulation and motor synergies in duet performance*. Society of Music Perception and Cognition. Nashville, TN.
- Demos, A.P.**, Wanderley, M.M., & Palmer, C. (2015, March). *Auditory Feedback Perturbations Disrupt Solo and Joint Piano Performance*. New England Sequencing and Timing (NEST). Amherst, MA.
- Marsh, K.L, **Demos, A.P.**, & Chaffin, R. (2015, July). *Coordination of movement through music*. 6th Joint Action Meeting. Duna Palota, Budapest.
- Demos, A.P.**, Palmer, C., Wanderley, M.M., & Dixon, R. (2014, July). *Auditory Feedback Perturbations Affect Duet Music Performance*. 24<sup>th</sup> Canadian Society for Brain, Behaviour and Cognitive Science (CSBBCS). Toronto, CA.
- Demos, A.P.**, Spidle, F., Koopmans, E., & Palmer, C. (2015, February). *Singers' postural sway during solo and duet performance*. Workshop on Sensorimotor Integration, CIRMMT, McGill, Montreal.
- Demos, A.P.** (2014). *Postural sway and musical structure: A dynamical systems approach to expressive trombone performance*. Workshop on Dance, Movement, Cognition, and the Brain, BRAMS/CRBLM, University of Montreal, Montreal, December.
- Demos, A.P.**, Del Tufo, S., Chaffin, C., Marsh, K.L., & Theodore, R. (2014, April). *Spontaneous Interpersonal Synchronization in Dyslexia*. 21<sup>st</sup> Cognitive Neuroscience Society (CNS), Boston, MA.
- Alfred, K, **Demos, A.P.**, Chaffin, C., Marsh, K.L., (2014, March). *Individual Differences in Intentional Rhythmic Synchrony*. Eastern Psychological Association (EPA), Boston, MA.
- Demos, A.P.**, & Chaffin, R. (2013, November). *The Perception of Trombonist Movement through Musical Sound*. 12<sup>th</sup> Auditory, Perception, Cognition, and Action Meeting (APCAM), Toronto, CA.
- Chaffin, R., **Demos, A.P.**, Alfred, K. & Marsh, K.L. (2013, November). *Predicting Auditory Interpersonal Synchrony through Synchrony to Music*. 12<sup>th</sup> Auditory, Perception, Cognition, and Action Meeting (APCAM), Toronto, CA.
- Ginsborg, J., Chaffin, R., **Demos, A. P.**, & Nicholson, G. (2013, April). *Different roles for prepared and spontaneous thoughts: A practice-based study of performance from memory*. 2nd Performance Studies Network Conference (CMPCP), Cambridge, UK.
- Ginsborg, J., Chaffin, R., **Demos, A. P.**, & Nicholson, G. (2013, March). *Practice-based research in and on practice: The development of performance cues*. CARPA 3: The Impact of Practice as Research. Theatre Academy, Helsinki, Finland.
- Demos, A.P.**, Chaffin, R., & Marsh, K.L. (2012, November). *Self-Organization of Spontaneous Synchronization while "Maraca-ing"*. The Psychonomic Society Annual Meeting, Minneapolis, MN.
- Chaffin, R., **Demos, A.P.**, Kant, V., & Lisboa, T. (2012, November). *"It's Different Every Time": Stability of Expressive Timing in Repeated Music Performance*. The Psychonomic Society Annual Meeting, Minneapolis, MN.
- Shaw, A., **Demos, A.P.**, Arthur, D., & Magnuson, J.S. (2012, November). *Individual Differences in Lexical Quality of Newly Learned Words*. Poster presented at the Psychonomic Society Annual Meeting, Minneapolis, MN.

- Marsh, K.L., **Demos, A.P.**, Chaffin, R. (2012, June). *Moving to the Beat: Spontaneous and Intentional Coordination while Maraca-ing*. European Workshop on Ecological Psychology (EWEP), Madrid, Spain.
- Ginsborg, J., Chaffin, R., & **Demos, A. P.** (2011, September). *Preparation and spontaneity in performance: Effects on subsequent recall*. Conference on Interdisciplinary Musicology (CIM11), Glasgow, Scotland.
- Demos, A.P.**, Frank, T., & Logan, T. (2011, August). *Movement during Performance: A Hunt for Musical Structure in Postural Sway*. Poster presented at the Society for Music Perception and Cognition (SMPC), Rochester, NY.
- Lisboa, T, **Demos, A.P.**, Chaffin, R., Begosh, K.T. (2011, August). *The development of interpretation during practice and public performance: A case study*. Paper presented at the Society for Music Perception and Cognition (SMPC), Rochester, NY.
- Demos, A.P.**, Chaffin, R. & Marsh, K.L. (2010, May). *Differences between spontaneous and intentional entrainment to a musical beat*. Poster presented at the Association for Psychological Science, Boston MA.
- Demos, A.P.**, Chaffin, R., Lewis, A., Begosh, K.T., Daniels, J. (2009, August). *Rocking in Synch: Effects of music on interpersonal coordination*. Poster presented at the Society for Music Perception and Cognition (SMPC), Indianapolis.
- Demos, A.P.**, Chaffin, R. (2009, August). *A Software Tool for Studying Music Practice: SYMP (Study Your Music Practice)*. Poster presented at the European Society for the Cognition Sciences of Music (ESCOM), University of Jyväskylä, Finland.
- Demos, A.P.**, Aaronson, D. & Aiello, R. (2008, July). *Musicians' cognitive processing strategies*. Paper presented at the 2<sup>nd</sup> International Conference on Psychology, Athens, Greece, July 13, 2008.
- Aaronson, D., **Demos, A.P.**, & Aiello, R. (2007, March) *Cognitive Processing Strategies for Music and Language: Some Individual Differences*. Poster session at the Eastern Psychological Association, March 2007.
- Demos, A.P.** (2005, April). *Transitioning from Paper- to Web-Based Surveys*. Poster presented at the NYU Graduate School of Arts and Sciences Research Conference, New York, NY.
- Aiello, R., Aaronson, D., & **Demos, A.P.** (2003). What is Salient When You Listen? An evaluation of Musicians' Responses. In *Proceedings of Society for Music Perception & Cognition 2003*. Nevada.

**UNDERGRADUATE MENTORING**

<b>Name</b>	<b>Semesters</b>	<b>Start Date</b>	<b>Project</b>
Alexandra Lewis	2	Spring 2008	Rocking to the beat: Spontaneous interpersonal synchronization
Jared Marinuzzi	2	Fall 2009	Spontaneous entrainment to music
Alexander Stackpole	2	Fall 2009	Spontaneous entrainment to music
Caitlin Cuskley	2	Fall 2009	Performance cue survey: Memory landmarks for memorized landmarks
Andrea Melms	4	Fall 2010	Learning the Chopin Barcarolle: Expert memory in performance
Katherine Alfred	6	Fall 2010	Maraca to the beat: Spontaneous interpersonal synchronization and entrainment to music
Kayleigh Kangas	6	Fall 2010	Intentional interpersonal synchronization
Jasmine Caban	2	Spring 2013	Spontaneous interpersonal synchronization in dyslexia
Ruby Dixon	1	Winter, 2014	Sensorimotor synchronization of ensemble performance
Daniel Carter	3	Summer 2014	Dynamics of Sensorimotor Synchronization

**STATISTICS CONSULTING**

Statistics Consultant  
2012 – 2013

**Dr. Frank Musiek's Neuroaudiology Lab**, Storrs, CT, Department of Communication Disorders

Psychometrics Consultant  
2008 – 2015

**Professional Examination Service**, New York, NY. Department of Research and Development

Statistics Consultant  
2016 – Present

**Dr. Diana Santiago**, Universidade Federal da Bahia, Escola de Musica, Brazil. Grant: N.308743/2015-6

**RESEARCH EXPERIENCE**

Research Assistant  
2003 – 2004

**Albert Einstein College of Medicine**, Bronx, NY. Department of Epidemiology and Population Health, The Women's Health Initiative National Study, Sponsored by National Institutes of Health.

**STATISTICS WORKSHOPS CREATED**

Mixed Models – A Crash Course. McGill University, April 2015.

**ADVANCED R GROUP [Demos & Motyl Leading] –Fall 2016**

Workshops two times a month with faculty and graduate students to work together on advanced R coding issues.

**ADVANCED SKILLS**

**Data Analysis:** Mixed Effects Models, Circular Statistics, Dyadic Data Analysis, Non-Linear Methods (e.g., RQA, fractals), Time-Series Analysis, and Signal Processing.

**Software Packages:** MATLAB, R, SPSS, E-Prime

**SPECIAL METHODS TRAINING**

APA's Advanced Training Institute: *Nonlinear Methods for Psychological Science*, University of Cincinnati, Summer 2010

**AD HOC REVIEWER**

*Behavioral Research Methods, Journal of Experimental Psychology: General, Journal of Experimental Social Psychology, Frontiers in Neuroscience, Physica A*