

Alejandro Lleras

Curriculum Vitae

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Current Occupation

Associate Dean for Inclusive Excellence
College of Liberal Arts and Sciences, University of Illinois at Urbana-Champaign

Professor

Department of Psychology and Beckman Institute for Advanced Science and
Technology, University of Illinois at Urbana-Champaign

Co-Founder, Governing Board Member, SPARK Society for the improvement of
diversity and inclusion in the cognitive sciences

U.S. National Committee for Psychological Science at the National Academies of
Sciences, Engineering, and Medicine, Member (2022-2026)

U.S. Delegate to the International Union of Psychological Science

Previous Occupation

2022-2023 Associate Head for Diversity and Inclusion
Department of Psychology
University of Illinois at Urbana-Champaign

2018-2022 Assistant Head for Diversity and Inclusion
Department of Psychology
University of Illinois at Urbana-Champaign

2010-2016 Associate Professor
Department of Psychology
Beckman Institute for Advanced Science and Technology
University of Illinois at Urbana-Champaign

2004-2010 Assistant Professor
Department of Psychology
Beckman Institute for Advanced Science and Technology
University of Illinois at Urbana-Champaign

Education

- 2002-2004 University of British Columbia, Vancouver, Canada
Postdoctoral Fellow in Cognitive Systems.
- 1998-2002 Ph.D. from Pennsylvania State University; University Park, PA
Ph.D. in Cognitive Psychology, Option in Attention and Visual Perception.
- 1997-1998 Pennsylvania State University; University Park, PA
M.S. in Industrial Engineering, December 1998, Option in Human Factors & Ergonomics.
- 1995-1997 École Centrale de Lyon; Lyon, France
B.S. in Engineering Sciences, July 1998
- 1993-1995 Lycée Préparatoire Saint-Louis; Paris, France
Mat. Sup., Mat Spé.

Research Grants and Awards

Appointed as U.S. Delegate to the International Union of Psychological Science by the National Academies of Sciences, Engineering, and Medicine (2024)

Psychonomic Society Mid-Career Award recipient (2023)

National Science Foundation grant: SPARKing representation in Cognitive Science (co-PI, PI Thomas). US\$240,000 (2023-2026)

Elected Member to the U.S. National Committee for Psychological Science at the National Academies of Sciences, Engineering, and Medicine (2022-2026)

National Science Foundation grant: CompCog: Template Contrast and Saliency (TCAS) Toolbox: A tool to visualize parallel attentive evaluation of scenes. (co-PI, PI Buetti). US\$ 657,000. (2019-2022)

National Science Foundation grant: Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science. (co-PI, PI Thomas), US\$84,000. (2018-2021)

Fellow, Association for Psychological Science, 2018.

Charles Ericksen Professorial Scholar in Psychology, 2017.

Awarded an Arnold O. Beckman Award from the University of Illinois' Research Board, in Fall 2015, for \$19,922 to collect pilot data on a project involving developing new non-overt report measures of mind wandering (less than 20% of proposals are funded).

Fellow, Psychonomic Society

Awarded a \$40,000 FIRE Research Grant, for a collaborative project with faculty members from Advertising (Duff), Agriculture and Consumer Economics (Ellison), and Nutrition Sciences (Lee). "Efficacy of nutritional labeling and its contributions to sensory acceptability and food choice". Funds include support for a one-semester RAship in Psychology.

Awarded a Research Grant from the University of Illinois' Research Board, in Spring 2012, for \$8,800 to collect pilot data on a project involving how performance pressure affects the attention system (less than 20% of proposals are funded).

Named 2010-2011 Helen Corley Petit Scholar. Competitive award given to the three most outstanding Assistant Professors in the College of Liberal Arts and Sciences at the University of Illinois (US\$10,000).

Discretionary Heady Award for outstanding services to the Department of Psychology (December 2009). Only time since the inception of the award 6 years prior that a faculty member had been honored with this award.

Illinois Faculty All-Star (Fall, 2008). Chosen by Chancellor Richard Hermann as one of sixteen top-performing academics at the University of Illinois.

Awarded a 5-year CAREER award by the National Science Foundation, Division of Social, Behavioral and Economic Sciences, 2008-2013 (US\$400,000), award #07-46586 CAR.

Awarded a 1-year Researcher Starter Grant by the National Science Foundation, Division of Social, Behavioral and Economic Sciences, 2005-2006 (US\$50,000 direct cost), award #0527361.

Awarded a 2-year Minority Postdoctoral Research Fellowship by the National Science Foundation, Division of Social, Behavioral and Economic Sciences, 2003-2005 (US \$100,000 award), award# 0309998.

Awarded 2002 Beckman Institute for Advanced Science Post-doctoral Fellowship (US\$100,000 award, declined).

Awarded the William L. and Josephine Berry Weiss Scholarship, fourth year fellowship for academic excellence and integrative research in the fields of engineering and liberal arts, College of the Liberal Arts, Pennsylvania State University, 2001-2002 (US\$16,000).

Laureate of the French Ministry for Foreign Affairs Scholarship For Excellence in Academic Achievements, 1993, 1994, 1995, 1996

Laureate of the Reyes Católicos National Prize of Literature in prose; Bogotá, Colombia, 1990

Other Academic Activities

Guest Editor (2020-2021): Special issue in the *Journal of Translation Issues in Psychological Science* (TIPS) on the impact of race on psychological processes. Co-editor: Jean Fox Tree. Graduate editors: Julia Spielmann and Katie Kroeper

Diversity Advisory Board *Vision Sciences Society*

Diversity Advisory Board *College of Liberal Arts & Sciences*

Member: Editor search committee for *Attention, Perception & Psychophysics*, 2020

Member: Editor search committee for *Memory & Cognition*, 2019

Program Chair Illinois Summit for Diversity in Psychological Science, March 2018.

Associate Editor for *Journal of Experimental Psychology: Human Perception & Performance* (2017)

Associate Editor for *Journal of Experimental Psychology: General* (January 2011-July 2017)

Member of the College of Reviewers at the National Science Foundation (since 2014)

Chair Diversity Committee, Department of Psychology (since September 2016)

Diversity Committee of the Psychonomic Society, member (since January 2016-2020)

Consulting Editor for *Visual Cognition* (2009-2014)

Consulting Editor for *Attention, Perception & Psychophysics* (2006-2014)

Consulting Editor for *Cognition* (2008-2015)

Panelist at the National Science Foundation's Perception, Action and Cognition review panel (on many instances throughout the years).

Panelist at the National Institute of Health's Cognition and Perception panel.

I ran a two-day intensive workshop to teach how to program in Matlab at the Annual Meeting of the Society for Psychophysiological Research (Portland, 2010).

Panelist at the National Science Foundation Research Experiences for Undergraduate students (2006).

Head, Human Subjects Committee 2009-2011. I was the Head of the Ethics committee internal to the Psychology Department. I was also in charge of the subject pool system, which handles on average 10000 subject hours per semester.

Co-organizer of the 12th annual workshop on Object Perception, Attention and Memory (OPAM), November 18, 2004, at the 45th Annual Meeting of the Psychonomic Society, Minneapolis, MN.

Co-organizer of the 11th annual workshop on Object Perception, Attention and Memory (OPAM), November 6, 2003, at the 44th Annual Meeting of the Psychonomic Society, Vancouver, BC, Canada.

Usability and Design Consultant for the Nissan Motor Co. (2002-2003)

Ad-hoc reviewer for Proceedings of National Academy of Sciences (PNAS), Psychological Science, Journal of Experimental Psychology: General, Journal of Experimental Psychology: Human Perception and Performance, Journal of Cognitive Neuroscience, Psychonomic Bulletin & Review, Cognition, Spatial Vision, Psychophysiology, Visual Cognition, ACP, AEP, Consciousness & Cognition.

Invited Talks

I have been invited to give talks all around the globe. Most recently, I gave the Oxyopia Talk in Vision Science at UC Berkeley (April 10, 2023). This was a huge honor both because Berkeley has one of the top two (if not the top) Vision Science program in the world and because I was the speaker requested by graduate students (who only get invite one speaker every year). I also spoke at UC San Diego (Departmental Seminar, April 2022), UC Davis (Exploring the Mind lecture, April 2022), Harvard University's Cognition Brain and Behavior Seminar (Fall 2021), Queen's University (Spring 2021), Harvard University (Fall 2020), Georgetown University (Fall 2019), University of Maryland (Fall 2019), NYU- Abu Dhabi (UAE, 2017), University of Birmingham (UK, 2015), the Ludwig Maximilian Universität in Munich (2015, Germany), Tsinghua University (2013, Beijing, China), Vanderbilt (twice), University of Chicago (twice), Purdue University, Iowa University, Washington University in St Louis, Melbourne University (Australia, 2010), University of Tokyo (2009, Japan), Allahabad University (India, 2008), Princeton (2002), MIT (2002). I was also one of the few selected scholars invited to the 2018 Workshop on Visual Search and Selective Attention hosted in Germany by Professors Müller and Geyer to bring together the world leaders in our field, as well as one of the Keynote Speakers at the 2017 BASICS conference (Banff, Canada)

Publications (n=75; h-index = 31; i10-index = 57, total citations: 4632)

a. International refereed journals (n=75)

* indicates co-senior author status.

75. Bogdan, P.C., Dolcos, S., Buetti, S., Lleras, A., Dolcos, F. (2023). Investigating the suitability of online eye tracking for psychological research: Evidence from comparisons with in-person data using emotion-attention interaction tasks. **Behavioral Research Methods**. 2023 Jun 20. doi: 10.3758/s13428-023-02143-z. Epub ahead of print. PMID: 37340240.

74. Bogdan, P., Dolcos, S., Federmeier, K., Lleras, A., Schwarb, H., Dolcos, F. (2023). Emotional dissociations in temporal associations: opposing effects of arousal on memory for details surrounding unpleasant events. **Cognition and Emotion**. 1-15. 10.1080/02699931.2023.2270196
73. Cui, A. Y., Buetti*, S. & Lleras*, A. (2023). Complex background information slows down parallel search efficiency by reducing the strength of inter-item interactions. **Journal of Experimental Psychology: Human Perception & Performance**, 49(7), 1053–1067. <https://doi.org/10.1037/xhp0001130>
72. Lleras*, A., Buetti*, S. & Xu, Z.J. (2022). Incorporating the properties of peripheral vision into theories of visual search. **Nature Reviews Psychology**. <https://doi.org/10.1038/s44159-022-00097-1>.
71. Dolcos, F., Bogdan, P., O'Brien, M., Jordan, A. D., Madison, A., Buetti, S., Lleras, A., & Dolcos, S. (2022). Look Away and Everything will be Okay: Behavioral and Eye-Tracking Effects of Focused Attention on Emotional Evaluation. **Emotion**, 22(5), 22(5), 1088–1099. <http://dx.doi.org/10.1037/emo0000895>
70. Spielmann, J., Kroeper, K. M., Lleras*, A., & Fox Tree*, J. E. (2021). Introduction to the special issue on the impact of race on psychological processes. **Translational Issues in Psychological Science**, 7(4), 357–362. <https://doi.org/10.1037/tps0000308>
Spielmann and Kroeper were graduate students at the time.
69. Xu, J., Lleras*, A., Shao, Y., & Buetti*, S. (2021). Distractor-Distractor Interactions in Visual Search for Oriented Targets Explain the Increased Difficulty Observed in Non-Linearly Separable Conditions. **Journal of Experimental Psychology: Human Perception and Performance**, 47(9), 1274-1297.
68. Lively, Z., Ng, G. J. P., Buetti*, S., & Lleras*, A. (2021). Irrelevant features of distractors in intervening visual search tasks cause active visual working memory interference: the more difficult the search task, the more interference it causes. **Attention, Perception, & Psychophysics**, 83(6). doi: 10.3758/s13414021-02318-w.
67. Xu, Z., Lleras*, A. & Buetti*, S. Predicting how surface texture and shape combine in the human visual system to direct attention. **Nature Scientific Reports**, 11, 6170 (2021). <https://doi.org/10.1038/s41598-021-85605-8>
66. Ng, J.P.G., Buetti*, S., Patel, T.N., & Lleras*, A (2021). Prioritization in visual attention does not work the way you think it does. **Journal of Experimental Psychology: Human Perception and Performance**. 47(2):252-268. doi: 10.1037/xhp0000887. Epub 2020 Dec 14.
65. Dolcos, F., Katsumi, Y., Bogdan, P., Shen, C., Jun, S., Buetti, S., Lleras, A., Bost, K., F., Weymar, M., & Dolcos, S., (2020). The Impact of Focused Attention on Subsequent Emotional Recollection: A Functional MRI Investigation. **Neuropsychologia**, 138, 107338. <https://doi.org/10.1016/j.neuropsychologia.2020.107338>

64. Lleras*, A., Wang, Z., Ng., G.J.P., Ballew, K., Xu, J., & Buetti*, S. (2020). A target contrast signal theory of parallel processing in goal-directed search. *Attention, Perception, & Psychophysics*. Special Issue in Honor of Anne Treisman, 82, 394-425. <https://doi.org/10.3758/s13414-019-01928-9>
63. Ng, G.J.P., Buetti, S., Dolcos, S., Dolcos, F., & Lleras, A. (2019). Distractor rejection in parallel search tasks takes time but does not benefit from context repetition. *Visual Cognition*, 27(5-8),609-625. <https://doi.org/10.1080/13506285.2019.1676353> Special Issue of the Visual Search and Selective Attention workshop in Munich, 2018.
62. Buetti*, S., Xu, J., & Lleras*, A. (2019). Predicting how color and shape combine in the human visual system to direct attention. *Nature Scientific Reports*, 9, 20258, doi:10.1038/s41598-019-56238-9
61. Lleras*, A., Wang, Z., Madison, A., & Buetti*, S. (2019). Predicting Search Performance in Heterogeneous Scenes: Quantifying the Impact of Homogeneity Effects in Efficient Search. *Collabra: Psychology*, 5(1), 2. DOI:<http://doi.org/10.1525/collabra.151>
60. Ng, G. J. P., Lleras*, A., & Buetti*, S. (2018). Fixed-target efficient search has logarithmic efficiency with and without eye movements. *Attention, Perception, & Psychophysics*, 80(7), 1752-1762.
59. Wang, Z., Lleras*,A., Buetti*, S. (2018). Parallel, exhaustive processing underlies logarithmic search functions: visual search with cortical magnification. *Psychonomic Bulletin & Review*, 25 (4), 1343-1350.
58. Madison, A., Lleras*, A., & Buetti*, S. (2018). The role of crowding in parallel search: peripheral pooling is not responsible for logarithmic efficiency in parallel search. *Attention, Perception & Psychophysics*, 80(2), 352-373.
57. Shapiro, K. L., Hanslmayr, S., Enns, J.T., & Lleras, A. (2017). Alpha, Beta: the rhythm of the attentional blink. *Psychonomic Bulletin & Review*, 24(6), 1862–1869.
56. Lleras*, A., Chu, H., & Buetti*, S. (2017). Can we ‘apply’ the findings of Forster and Lavie (2008)? On the generalizability of attentional capture effects under varying levels of perceptual load. *Journal of Experimental Psychology: Applied*, 23(2), 158-179.
55. Wang, Z., Buetti*, S., & Lleras*, A. (2017). Predicting Search Performance in Heterogeneous Visual Search Scenes with Real-World Objects. *Collabra*.
54. Ahn, J., Patel, T. N., Buetti, S., & Lleras, A. 2017). Exploring the contributions of spatial and non-spatial working memory to priming of pop-out. *Attention, Perception & Psychophysics*, 79(4), 1012-1026.
53. Buetti*, S., & Lleras*, A. (2016). Distractibility is a function of engagement, not task difficulty: Evidence from a new oculomotor capture paradigm. *Journal of Experimental Psychology: General*, 145(10),1382-1405.

52. Lleras*, A., Cronin, D. A., Madison, A. M., Wang, Z., & Buetti*, S. (2016). Oh the number of things you will process (in parallel)! Commentary on Hulleman & Olivers (in press). *Behavioral & Brain Sciences*.
51. Panova, T., & Lleras, A. (2016). Avoidance or boredom: Negative mental health outcomes associated with use of Information and Communication Technologies depend on users' motivations. *Computers in Human Behavior*, *58*: 249-258.
50. Buetti*, S., Cronin, D. A., Madison, A. M., Wang, Z., & Lleras*, A. (2016). Towards a better understanding of parallel visual processing in human vision: Evidence for exhaustive analysis of visual information. *Journal of Experimental Psychology: General*, *145(6)*, 672-707.
49. Michal, A., Lleras, A., & Beck, D. (2014). Relative contributions of task-relevant and task-irrelevant dimensions in priming of pop-out. *Journal of Vision*, *14(12)*: 14. doi:10.1167/14.12.14
48. Scalf, P.E., Ahn, J.W., Beck, D.M., & Lleras, A. (2014). Trial history effects in the ventral attentional network. *Journal of Cognitive Neuroscience*, *26(12)*: 2789-97. doi: 10.1162/jocn_a_00678.
47. Lleras*, A., & Buetti*, S. (2014). Not all "distractor" tags are created equal: using a search asymmetry to dissociate the inter-trial effects caused by different forms of distractors. *Frontiers in Psychology*, *5*:669. doi: 10.3389/fpsyg.2014.00669.
46. Buetti, S, Moore, C. M., & Lleras, A. (2014). The flanker effect does not reflect the processing of "task-irrelevant" stimuli: Evidence from inattention blindness. *Psychonomic Bulletin & Review*, *21(5)*, 1231-1237. DOI: 10.3758/s13423-014-0602-9.
45. Wan, X., Tian, L., & Lleras, A. (2014). Age-related differences in the distractor previewing effect with schematic faces of emotions. *Neuropsychology, development, and cognition. Section B, Aging, neuropsychology and cognition*, *21(4)*:386-410. doi: 10.1080/13825585.2013.824064.
44. Mereu, S., Zacks, J.F., Kurby, C., A., & Lleras, A. (2014). Constraints can help perceptual prediction-if you have a mind to let them. *Journal of Experimental Psychology: Human Perception and Performance*, *40(4)*: 1372-89. doi: 10.1037/a0036646.
43. Tseng, Y.C., Glaser, J., I., Caddigan, E. & Lleras, A. (2014). Modeling the Effect of Selection History on Pop-out Visual Search. *PLOS ONE*, *9(3)*: e89996. doi:10.1371/journal.pone.0089996.
42. Mereu, S., & Lleras, A. (2013). Feelings of control restore distorted time perception of emotionally charged events. *Consciousness & Cognition*, *22*, 306-314.

41. Tseng, Y. C., & Lleras, A. (2013). Rewarding context accelerates implicit guidance in visual search. *Attention, Perception & Psychophysics*, *75*(2), 287-298.
40. Mathewson, K. E., Prudhomme, C., Fabiani, M., Beck, D. M., Lleras, A., Gratton, G. (2012). Making waves in the stream of consciousness: entraining oscillations in EEG alpha and fluctuations in visual awareness with rhythmic visual stimulation. *Journal of Cognitive Neuroscience*, *24*(12), 2321-2333.
39. Buetti, S. & Lleras, A. (2012). Perceiving control over aversive and fearful events can alter how we experience those events: an investigation of time perception in spider-fearful individuals. *Frontiers in Emotion Science*. Special issue: The Impact of Emotion on Cognition – Dissociating between Enhancing and Impairing Effects (*Frontiers in Emotion Science Cross-Linked with Frontiers in Integrative Neuroscience*), *3*, 337.
38. Wan, X., Voss, M., & Lleras, A. (2011). Age-Related Effects in Inter-Trial Inhibition of Attention. *Aging, Neuropsychology, and Cognition*, *18*(5), 562-576.
37. Ariga, A., & Lleras, A. (2011). Brief and rare mental “breaks” keep you focused: deactivation and reactivation of task goals preempt vigilance decrements. *Cognition*, *118*(3), 439-443.
36. Lleras, A., Porporino, M., Burack, J., & Enns, J. T. (2011). Rapid resumption of an interrupted search is not influenced by age-related improvements in search efficiency. *Journal of Experimental Child Psychology*, *109* (1), 58-72.
35. Mathewson, K. E., Lleras, A., Beck, D. M., Fabiani, M., Ro, T., & Gratton, G. (2011). Pulsed Out of Awareness: EEG Alpha oscillations represent a pulsed inhibition of ongoing cortical processing. *Frontiers in Perception Science*, *2*(99), 1-15.
34. Caddigan, E., & Lleras, A. (2010). Saccadic repulsion in pop-out search: how a target's dodgy history can push the eyes away from it. *Journal of Vision*, *10* (14).
33. Mathewson, K. E., Fabiani, M., Gratton, G., Beck, D. M., & Lleras, A. (2010). Rescuing stimuli from invisibility: inducing a momentary release from visual masking with pre-target entrainment. *Cognition*, *115*, 186-191.
32. Wan, X., & Lleras, A. (2010). The Effect of Feature Discriminability on the Inter-Trial Inhibition of Focused Attention. *Visual Cognition*, *18*, 920-944.
31. Lleras, A., Kawahara, J., & Levinthal, B. R. (2009). Past rejections lead to future misses: Selection-related inhibition produces blink-like misses of future (easily detectable) events. *Journal of Vision*, *9*(3):26, 1-12.
30. Lleras, A., & Enns, J. T. (2009). Focused spatial attention is independent of rapid resumption of an interrupted search. *Attention, Perception & Psychophysics*, *71*, 565-577.
29. Thomas, L. E., & Lleras, A. (2009a). Covert shifts of attention function as an implicit aid to insight. *Cognition*, *111*, 168-174.

28. Thomas, L. E., & Lleras, A. (2009b). Inhibitory tagging in an interrupted visual search. *Attention, Perception & Psychophysics*, *71*, 1241-1250.
27. Thomas, L. E., & Lleras, A. (2009c). Swinging into thought: directed movement guides insight in problem solving. *Psychonomic Bulletin & Review*, *16*, 719-723.
26. Ambinder, M. S., & Lleras, A. (2009). Temporal tuning and attentional gating: two distinct attentional mechanisms on the perception of rapid serial visual events. *Attention, Perception & Psychophysics*, *71*, 1495-1506.
25. Levinthal, B. R., & Lleras, A. (2008b). Context-free inhibition: attentional biases transfer strongly across temporal and spatial search tasks. *Visual Cognition*, *16*, 1119-1123.
24. Lleras, A., Kawahara, J., Wan, X. I., Ariga, A. (2008). Inter-trial inhibition of focused attention in pop-out search. *Perception & Psychophysics*, *70*, 114-131.
23. Levinthal, B. R. & Lleras, A. (2008a). Inter-trial inhibition of attention to features is modulated by task relevance. *Journal of Vision*, *8(15)*, 1-15.
22. Enns, J. T., & Lleras, A. (2008). New evidence for prediction in human vision. *Trends in Cognitive Sciences*, *12*, 327-333.
21. Shin, E., Wan, R. I., Fabiani, M., Gratton, G., & Lleras, A. (2008). Electrophysiological evidence of feature-based inhibition of focused attention across consecutive trials. *Psychophysiology*, *45*, 804-811.
20. Lleras, A., Rensink, R. A., & Enns, J. T. (2007). Consequences of display changes during interrupted visual search: rapid resumption is target specific. *Perception & Psychophysics*, *69*, 980-993.
19. Bennett, J. D., Lleras, A., Oriet, C., & Enns, J. T. (2007). A negative compatibility effect in priming of emotional faces. *Psychonomic Bulletin & Review*, *14*, 908-912.
18. van Zoest, W., Lleras, A., Kingstone, A., & Enns, J. T. (2007). In sight, out of mind: the role of eye movements in the rapid resumption of visual search. *Perception & Psychophysics*, *69*, 1204-1217.
17. von Mühlénen, A., & Lleras, A. (2007). No-onset looming motion guides spatial attention. *Journal of Experimental Psychology: Human Perception & Performance*, *33*, 1297-1310.
16. Levinthal, B. R., & Lleras, A. (2007). The unique contributions of retinal size and perceived size on change detection. *Visual Cognition*, *15(1)*, 101- 105.
15. Thomas, L. E., & Lleras, A. (2007). Moving eyes and moving thought: On the spatial compatibility between eye movements and cognition. *Psychonomic Bulletin & Review*, *14*, 663-668.

14. Lleras, A., & Moore, C. M. (2006). What you see is what you get: Functional equivalence of a perceptually filled-in surface and a physically presented stimulus. *Psychological Science*, *17*, 876-881.
13. Lleras, A., & Enns, J. T. (2006). How much like a target can a mask be? Geometric, spatial, and temporal similarity in priming. A reply to Schlaghecken and Eimer (2006). *Journal of Experimental Psychology: General*, *135*, 495-500.
12. Simons, D. J., Lleras, A., Martinez-Conde, S., Slichter, D., Caddigan, E., & Nevarez, G. (2006). Induced visual fading of complex images. *Journal of Vision*, *6*, 1093-1101.
11. Thomas, L. E., Ambinder, M. S., Hsieh, B., Levinthal, B., Crowell, J. A., Irwin, D. E., Kramer, A. F., Lleras, A., Simons, D. J., Wang, R. F. (2006). Fruitful Visual Search: Inhibition of Return in a Virtual Foraging Task. *Psychonomic Bulletin & Review*, *13*, 891-895.
10. Lleras, A., & Enns, J. T. (2005) Updating a cautionary tale of masked priming: a reply to Klapp (2005). *Journal of Experimental Psychology: General*, *134*, 436-440.
9. Lleras, A., Rensink, R., & Enns, J. T. (2005). Rapid resumption of interrupted visual search: new insight into the interactions between vision and memory, *Psychological Science*, *16*, 684-688.
8. Moore, C. M., & Lleras, A. (2005). On the role of object representations in substitution masking. *Journal of Experimental Psychology: Human Perception and Performance*, *31*, 1171-1180.
7. Lleras, A., & Enns, J. T. (2004). Negative compatibility or object updating? A cautionary tale of mask-dependent priming. *Journal of Experimental Psychology: General*, *133*, 475-493.
6. Lleras, A., & von Mühlenen, A. (2004). Spatial context and top-down strategies in visual search. *Spatial Vision*, *17*, 465-482.
5. Lleras, A., Moore, C. M., & Mordkoff, J. T. (2004). Looking for the source of the Simon Effect: evidence for multiple codes. *American Journal of Psychology*, *117*, 531-542.
4. Moore, C. M., Lleras, A., Grosjean, M., & Marrara, M. T. (2004). Using inattentional blindness as an operational definition of unattended: The case of a response-end effect. *Visual Cognition*, *11*, 705-719.
3. Lleras, A., & Moore, C. M. (2003). When the target becomes the mask: using apparent motion to isolate the object-level component of Object Substitution Masking. *Journal of Experimental Psychology: Human Perception and Performance*, *29*, 106-120.

2. Moore, C. M., Grosjean, M., & Lleras, A. (2003). Using inattention blindness as an operational definition of unattended: the case of perceptual completion. *Visual Cognition*, *10*, 299-318.
1. Moore, C. M., Elsinger, C. L., & Lleras, A. (2001). Visual attention and the apprehension of spatial relations: the case of depth. *Perception & Psychophysics*, *63*, 595-606.

b. Books, chapters and blogs. (n=6)

6. Fox Tree, J., Lleras, A., Thomas, A., & Watson, D. (2022). The inequitable burden of open science. <https://featuredcontent.psychonomic.org/the-inequitable-burden-of-open-science/> Blog of the Psychonomic Society.
5. Buetti, S., & Lleras, A. (2013). Vision. Noba Project.
4. Lleras, A., Buetti, S., & Mordkoff, J.T. (2013). When do the effects of distractors provide a measure of distractibility? In Brian R. Ross (Ed) **Psychology of Learning and Motivation** Vol. 59, pp, 261-315.
3. Enns, J.T., Lleras, A., & Moore, C.M. (2010). Object updating: a force for perceptual continuity and scene stability in human vision. In R. Nijhawan (Ed.) **Problems of space and time in perception and action**. pp. 503-520. Cambridge University Press. Cambridge:MA, USA.
2. Lleras, A., Levinthal, B. R., & J., & Kawahara, J. (2009). The remains of the trial: Goal-determined inter-trial suppression of selective attention. N. Srinivasan (Ed.): **Progress in Brain Research, Vol. 176, Attention**. The Netherlands: Elsevier, 195-213.
1. Enns, J. T., Lleras, A., & Di Lollo, V. (2006). Three aspects of visual masking are informed by reentrant modeling: object substitution, feature migration, and action priming. Invited chapter in B. Breitmeyer and H. Ogmen (Eds.) **The First Half Second: the Microgenesis and Temporal Dynamics of Unconscious and Conscious Visual Processes**. pp: 127-148. MIT press.

c. Published Abstracts in international conferences and invited talks. (n > 130)

- Tan, H. J. H., Xu, Z. J., Lleras, A., & Buetti, S. (Planned for May 2024, planned). Evaluating the contributions of top-down and bottom-up processing on eye movements during parallel visual search. Poster at the 24rd Annual Meeting of the Vision Sciences Society.

- Xu, Z.J., Spjut, J., Boudaoud, B., Buetti, S., Lleras, A., & Rosenholtz, R. (Planned for May 2024, planned). Do action video game players search faster than non-players? Talk at the 24rd Annual Meeting of the Vision Sciences Society.
- Dolcos, F., Bogdan, P. C. Katsumi, Y., Iordan, A. D., Buetti, S., Lleras, A., Schwarb, H., Federmeier, K., Freeman Bost, K., & Dolcos, S., (planned for April 2024). Reconciling Opposing Effects of Emotion on Relational Memory: Behavioral, Eye-Tracking, and Brain Imaging Evidence. CNS Annual Meeting.
- Heaton R. F., Hummel J. E., Lleras, A., & Buetti, S. (2023, November). Cortical Magnification, Not Summary Statistics, Explains Information Loss in Peripheral Vision. Poster presented at OPAM 31, San Francisco, CA.
- Xu, Z. J., Lleras, A., Hummel, J. E., & Buetti, S. (2023, May). Does visual distinctiveness from an unexpected feature dimension facilitate search? Poster presented at the 23rd Annual Meeting of the Vision Sciences Society.
- Cui, A., Lleras, A., Hummel, J., & Buetti, S. (2022). Pooling-Mediated Processing in Peripheral Vision Is Not Responsible for Conjunction Search Difficulty. Annual meeting of the Psychonomic Society.
- Xu, Z. J., Lleras, A., Hummel, J. E., & Buetti, S. (2022). Distractor heterogeneity as the cause of the linear separability effect. Annual Meeting of the Vision Sciences Society.
- Cui, A. Y., Lleras, A., Hummel, J. E., & Buetti, S. (2022). Pooling-mediated processing in peripheral vision is responsible for conjunction search difficulty. Annual Meeting of the Vision Sciences Society.
- Wang, Y., Lleras, A., & Buetti, S. (2022). Search for Color X Color Conjunction in Heterogeneous Display Can Unfold in Parallel. Annual Meeting of the Vision Sciences Society.
- Tan, H. J. H, Buetti, S., Xu, Z. J., & Lleras, A. (2022). Testing feature boosting theories of visual attention in the color dimension using online experiments. Annual Meeting of the Vision Sciences Society. 2021
- Heaton, R. F., Buetti, S., Lleras, A., & Hummel, J. E. (2021, November). Visual salience maps based on V1 blob cells. Poster presented at the 62nd Annual Meeting of the Psychonomic Society (Virtual).
- Cui, A. Y., Lleras, A., & Buetti, S. (2021, November). Background information slows down parallel search efficiency by reducing the strength of inter-item interactions. Poster presented at the 62nd Annual Meeting of the Psychonomic Society (Virtual).
- Cui, Y., Ng, G., Buetti, S., & Lleras, A. (2021, May). Search efficiency in parallel search is not impacted (or only minimally so) by background complexity. Poster presented at the 21st Annual Meeting of the Vision Sciences Society (virtual meeting).

- Lin, Z., Ng, G., Cui, Y., Buetti, S., & Lleras, A. (2021, May). Switching target templates decreases search efficiency in efficient search. Poster presenter at the 21st Annual Meeting of the Vision Sciences Society (virtual meeting).
- Xu, Z. J., Ng, G., Lleras, A., Hummel, J. E., Buetti, S. (2021) How does multidimensional complexity impact processing efficiency in visual search. Poster presenter at the 21st Annual Meeting of the Vision Sciences Society (virtual meeting).
- Heaton, R., Buetti, S., Lleras, A. & Hummel, J. (2021). Evidence for parallel processing of relational information in visual search. Talk presented at the 21st Annual Meeting of the Vision Sciences Society (virtual meeting).
- Wang, Y., Lleras, A., Buetti, S. (2021). Search for center-surround colored stimuli highlights peripheral vision processing limitations. Poster presented at the 21st Annual Meeting of the Vision Sciences Society (virtual meeting).
- Ng., G. J. P., Buetti, S., & Lleras, A. (2021) . Scene context limits processing to target-consistent regions without changing object processing rates in efficient search tasks. Poster presented at the 21st Annual Meeting of the Vision Sciences Society (virtual meeting).
- Lleras, A., & Buetti, S. (November 2020). Top-down contrast drives attention. Presented at the Annual Meeting of the Psychonomic Society.
- Xu, Z. J., Lleras, A., & Buetti, S. (November 2020). A new prediction-based approach to study visual search and attention. Presented at the Annual Meeting of the Psychonomic Society.
- Ng, G., Ballew, K., Lleras, A., & Buetti, S. (May 2020). Background complexity decreases evidence accumulation rates during parallel processing in efficient search. Presented at the Annual Meeting of the Vision Sciences Society.
- Xu, J., Lleras, A., Buetti, S. (May 2020). How texture and shape distinctiveness combine in the visual system to guide attention. Presented at the Annual Meeting of the Vision Sciences Society.
- Buetti, S., Shao, Y., & Lleras, A. (May 2020). Re-examining the linear separability effect in visual search for oriented targets. Presented at the Annual Meeting of the Vision Sciences Society. Shao is an undergraduate student in our lab.
- Conti, J., Buetti, S., & Lleras, A. (May 2020). Evaluating the contribution of visual feature heterogeneity in conjunction search performance. Presented at the Annual Meeting of the Vision Sciences Society. Conti is an undergraduate student in our lab.
- Heaton, R., Hummel, J., Lleras, A., & Buetti, S. (May 2020). A Computational Account of Serial and Parallel Processing in Visual Search. Presented at the Annual Meeting of the Vision Sciences Society.

- Ballew, K., Buetti, S., & Lleras, A. (May 2020). Explicit memory for contextual cueing displays: A simulation study. Presented at the Annual Meeting of the Vision Sciences Society
- Lively, Z. A., Ng, G. J. P., Buetti, S., & Lleras, A. (May 2019). Visual working memory representations are shifted toward irrelevant features of distractors in intervening visual search tasks. Poster presented at the Annual Meeting of the Vision Sciences Society. Note that Lively Z. A. is an undergraduate student in our lab.
- Ng, G. J. P., Zhou, J., Lleras, A., & Buetti, S. (May 2019). Effect of target context predictability in efficient search. Talk at the Annual Meeting of the Vision Sciences Society. Note that Zhou, J. is an undergraduate student in our lab.
- Xu, J., Ballew, K., Lleras, A., & Buetti, S. (May 2019). Do people's visual ability skill predict search efficiency under difficult search conditions? Poster presented at the Annual Meeting of the Vision Sciences Society.
- Lleras, A., Shao Y., & Buetti, S. (May 2019). Efficient search for unknown targets amongst known and unknown distractors. Poster presented at the Annual Meeting of the Vision Sciences Society.
- Ng, G. J.P., Buetti, S., & Lleras A. (2018, May). Display repetitions do not improve search efficiency in parallel search tasks. Poster presented at the Annual Meeting of the Vision Sciences Society, 2018.
- Ballew, K., Lleras, A. & Buetti, A. (2018, May). An individual differences investigation of the relationship between spatial working memory abilities and contextual cueing. Poster presented at the Annual Meeting of the Vision Sciences Society, 2018.
- Xu, J., Lleras, A., & Buetti, S. (2018, May). Is there a relationship between object recognition ability and visual search efficiency? Poster presented at the Annual Meeting of the Vision Sciences Society, 2018.
- Lleras, A., Xu, J., & Buetti, S. (2018, May). How do differences across visual features combine to determine visual search efficiency in parallel search? Poster presented at the Annual Meeting of the Vision Sciences Society, 2018.
- Lleras, A., & Buetti, S. (2018). What Guides Attention in Efficient Visual Search? Invited Talk at the International Symposium on Visual Search and Selective Attention, Munich, Germany, July 2018.
- Lleras, A., & Buetti, S. (2017). Towards a better understanding of early, parallel attentive processing in vision. Invited talk at New York University Abu Dhabi, March 5, 2017.
- Lleras, A., & Buetti, S. (2017). Towards a better understanding of early, parallel attentive processing in vision. Keynote Speaker at the 36th annual BASICS conference in Banff, Canada, May 5, 2017.

- Ng, G., Lleras, A., & Buetti, S. (2017). The width of the functional viewing field is sensitive to distractor-target similarity even in efficient search. Talk presented at the Annual Meeting of the Vision Sciences Society. St. Pete Beach, FL, May 2017.
- Lleras, A., Wang, Z., Madison, A., & Buetti, S. (2016, November). Estimating distractor-distractor suppression effects in parallel search. Paper presented at the 57th Annual meeting of the Psychonomic Society (Boston, US).
- Ng, G. J. P., Buetti, S., & Lleras, A. (2016, November). The role of eye movements in parallel search: Eye movements are neither necessary nor sufficient for logarithmic search functions to emerge. Poster presented at the 57th Annual meeting of the Psychonomic Society (Boston, US).
- O'Brien, M. M., Jordan, A. D., Madison, A., Katsumi, Y., Buetti, S., Lleras, A., Dolcos, S., & Dolcos, F. (2016, September). Immediate and long-term effects of emotion regulation: A behavioral and eye-tracking investigation of focused attention. Society for Psychophysiological Research.
- Lleras, A., & Buetti, S. (2016). Modeling Parallel Information Processing in Goal-Directed Vision. Director Seminar. Beckman Institute for Advanced Science and Technology.
- Madison, A., Lleras A., & Buetti, S. (2016, May). The effect of crowding on stage-one processing in feature singleton search. Talk presented at the Annual Meeting of the Vision Sciences Society, 2016.
- Lleras A., Patel, T., Buetti, S. (2016, May). Does similarity affect the order in which items are scrutinized in visual search? No. Poster to be presented at the Annual Meeting of the Vision Sciences Society, 2016.
- Buetti, S., & Lleras, A. (2015, November). Relationship between Performance and Susceptibility to Distraction by Irrelevant Events. 56th annual meeting of the Psychonomic Society (Chicago, USA).
- Lleras, A., Cronin, D. A., Madison, A. M., Wang, Z., Buetti, S. (2015, November). Logarithmic Efficiency in Visual Search: Implications for our understanding of visual attention. 56th annual meeting of the Psychonomic Society (Chicago, USA).
- Lleras, A., Madison, A., Cronin, D. M., Wang, Z., & Buetti, S. (2015, May) Towards a better understanding of the role of parallel attention in visual search. Poster to be presented at the Annual Meeting of the Vision Sciences Society, 2015.
- Cronin, D. M., Lleras, A., & Buetti, S. (2015, May). What's the role of parallel processing in visual search? Evidence from eye tracking. Poster to be presented at the Annual Meeting of the Vision Sciences Society, 2015.
- Madison, A., Buetti, S., & Lleras, A. (2015, May) Singleton search performance predicts performance on heterogeneous displays: Evidence in support of the Information

Theory of Vision. Poster to be presented at the Annual Meeting of the Vision Sciences Society, 2015.

- Lleras, A., & Buetti, S. (2014). Towards a better understanding of the role of parallel attention in vision. Invited talk at the Visual Cognition Laboratory at the University of Iowa, December 12, 2014.
- Lleras, A., Chu, H., & Buetti, S. (2014). Perceptual Load is not a structural limit in attentive processing: the case of performance under pressure. Poster presented at the Annual Meeting of the Psychonomic Society, Long Beach, CA, Nov. 20-23, 2014.
- Lleras, A., & Buetti, S. (2014). Understanding logarithmic efficiency in visual search. Invited talk at the National Cancer Institute, Vision Science Problems in Medical Imaging Workshop, November 7, 2014.
- Lleras, A., & Buetti, S. (2014). Ocular capture by abrupt onsets is severely reduced during mental arithmetic tasks: evidence against cognitive load theory. Invited talk at the University of Birmingham, October 7, 2014.
- Lleras, A., & Buetti, S. (2014). Visual search is driven by rejection (not selection). Invited talk at the Visual Cognition BrownBag speaker series. University of Illinois, September 10, 2014.
- Lleras, A., & Buetti, S. (2014). An Information Theory of Vision: Why visual search is log-linear (not just linear). Invited talk at the University of Birmingham, June 10, 2014.
- Lleras, A., & Buetti, S. (2014). Measuring Visual Information Load and its effect on response time. Invited talk at the Ludwig Maximillien University, Munich, May 28, 2014.
- Wang, Z., Buetti, S., & Lleras, A. (2014). Linear models of visual search are highly implausible: towards a better understanding of search in real world scenes using logarithmic functions. Poster presented at the 2014 annual meeting of the Vision Sciences Society, St. Pete Beach, May 20, 2014.
- Lleras, A., & Buetti, S. (2014). An information theory of vision: why visual search is log-linear (not just linear). Talk presented at the 2014 annual meeting of the Vision Sciences Society, St. Pete Beach, May 20, 2014
- Madison, A., Buetti, S., & Lleras, A. (2014). Logarithmic sequential discounting of elements in a search display during feature search: evidence in favor of the Information Theory of Vision. Poster presented at the 2014 annual meeting of the Vision Sciences Society, St. Pete Beach, May 20, 2014.
- Cronin, D. M., Lleras, A., & Buetti, S. (2014). The role of lure heterogeneity in logarithmic visual search. Poster presented at the 2014 annual meeting of the Vision Sciences Society, St. Pete Beach, May 20, 2014.

- Tapia, E., Lleras, A., & Beck, D.M. (2014). No masked priming of shape in metacontrast and object-substitution masking paradigms without attention. Poster presented at the 2014 annual meeting of the Vision Sciences Society, St. Pete Beach, May 20, 2014.
- Lleras, A., & Buetti, S. (2014). An information theory of vision. Invited Talk at the CENTER FOR INTEGRATIVE AND COGNITIVE NEUROSCIENCE SEMINAR SERIES, Vanderbilt University, February 5, 2014.
- Lleras, A., & Buetti, S. (2013). "On attention and distraction". Invited talk at the Social/Personality Brownbag, University of Illinois, December 4, 2013.
- Lleras, A., & Buetti, S. (2013). "Towards a better understanding of distractor effects, distraction and attention". Invited Talk at Tsinghua University, Beijing, China, May 24, 2013.
- Lleras, A., & Buetti, S. (2013). "Towards a better understanding of distractor effects, distraction and attention". Invited Talk at Chinese Academy of Sciences, Institute of Psychology, Beijing, China, May 28, 2013.
- Lleras, A., & Buetti, S. (2013). When do distractors measure distractibility? Invited Talk at the Cognitive Brownbag, University of Illinois, January, 2013.
- Buetti, S., Lleras, A., & Cronin, D. A. (2013). Attentive Screening: a parallel limited-capacity processing stage that locates likely targets. Poster presented at the 54th annual meeting of the Psychonomic Society (Toronto, CA).
- Lleras, A., Chu, H., & Buetti, S.(2013).What is the relationship between perceptual load and attentional capture? Talk presented at the 54th annual meeting of the Psychonomic Society (Toronto, CA).
- Lleras, A., & Ahn, J.W. (2013).Less of a Pop-Out? Spatial-VSTM is Critical For Priming of Pop-Out to Emerge. Poster presented at the 2013 Meeting of the Vision Sciences Society, Naples, FL, May.
- Lleras, A., & Buetti, S. (2012). What's the relation between cognitive load and distractibility?. Invited Talk at the Cognitive Neuroscience Brownbag, University of Illinois, December, 2012.
- Buetti, S., & Lleras, A. (2012). Examination of the boundaries of the buffering effect of control on emotion processing. 53th annual meeting of the Psychonomic Society (Minneapolis, USA).
- Lleras, A., & Buetti, S. (2012). Ocular capture by abrupt onset is severely reduced during mental arithmetic: Evidence against cognitive load theory. 53th annual meeting of the Psychonomic Society (Minneapolis, USA).
- Lustig, A. G., Simons, D.J., Lleras, A., Beck, D. M. (2012). Individual differences in object-based selection are predicted by visual short-term memory capacity. 2012 Meeting of the Vision Sciences Society, Naples, FL, May.

- Wan, X., Tian, X., Lleras, A. (2012). Age-related effects in previewing emotional faces in visual search. 2012 Meeting of the Vision Sciences Society, Naples, FL, May.
- Buetti, S., Mereu, S., & Lleras, A. (2011) Time distortion of emotional charged images in Normal and phobic individuals. Poster presented at the Annual Meeting of the Psychonomic Society. Seattle, WA, November 5, 2011.
- Lleras, A. Controlling attention and the contents of our thoughts. Invited Talk at the Purdue University, October 19, 2011.
- Lleras, A. Thought? Control? Invited Talk at the University of Iowa, September 9, 2011.
- Tseng, Y.C., Glaser, J., Caddigan, E., & Lleras, A. (2011). How recent visual experience modulates what we look at first. Poster presented at the 2011 Annual Meeting of the Vision Sciences Society.
- Ahn, J.W., Humphreys, G., Lleras, A. (2011). Inter-trial inhibition of spatial attention. Talk presented at the 2011 Annual Meeting of the Vision Sciences Society.
- Lleras, A. Following attention around through time and space. Invited Talk at the University of Chicago, February 22, 2011.
- Lleras, A. Controlling attention, our goals and the world around us. Invited Talk at the University of Chicago, November 9, 2010.
- Lleras, A., Attention and control of thoughts. Invited Talk at the University of Melbourne, Australia, December 18, 2010.
- Mereu, & Lleras, A. (2010). How to make time fly when you are not having fun. Poster presented at the Annual meeting of the Psychonomic Society, St. Louis, November, 2010.
- Tseng, Y., & Lleras, A. (2010). Valence and arousal effects of rewards on implicit contextual learning. Poster presented at the Annual meeting of the Psychonomic Society, St. Louis, November, 2010.
- Ariga, A., & Lleras, A. (2010) Deactivation and reactivation of task goals preempt vigilance decrements. Poster presented at the Annual meeting of the Psychonomic Society, St. Louis, November, 2010.
- Lleras, A. The role of goals and rewards on inter-trial attentional effects in visual search. Invited Talk at the Center for Advanced Science and Technology, University of Tokyo, Japan, February 4, 2010.
- Lleras, A. & Levinthal, B. R. The hidden value in memories: effects of external rewards on the attentional system. Invited Talk at the Annual Meeting of the Association for Psychological Science, Boston, MA, May, 2010.

- Lleras, A., & Levinthal, B. R. Attention ignores rewards when feature-reward mappings are uncertain. Poster presented at the Annual Meeting of the Vision Sciences Society, Naples, FL., May, 2010.
- Chu, H., Todd, J., Beilock, S., & Lleras, A. Endogenous Attention Control “chokes under pressure”. Poster presented at the Annual Meeting of the Vision Sciences Society, Naples, FL., May, 2010.
- Mereu, S., Zacks, J, Kurby, C., & Lleras, A. Prediction prevents rapid resumption from being disrupted after the target’s location has changed. Poster presented at the Annual Meeting of the Vision Sciences Society, Naples, FL., May, 2010.
- Shin, E., & Lleras, A. The effects of feature preview history and response strategy on inter-trial suppression of selective attention. Poster presented at the Annual Meeting of the Vision Sciences Society, Naples, FL., May, 2010.
- Mathewson, K., Prudhomme, C., Fabiani, M., Gratton, G., Beck, D., & Lleras, A. Controlling the timing of oscillations in neural activity and consciousness with rhythmic visual stimulation. Poster presented at the Annual Meeting of the Vision Sciences Society, Naples, FL., May, 2010.
- Tseng, Y. C., Glaser, J., & Lleras, A. Modulation of attention decision thresholds is responsible for inter-trial biases of attention in the distractor previewing effect. Poster presented at the Annual Meeting of the Vision Sciences Society, Naples, FL., May, 2010.
- Levinthal, B. R., & Lleras, A. *Reward-Induced Attentional Amnesia in Visual Search*. Presented at the the 2009 Annual Meeting of the Psychonomics Society, Boston, MA.
- Mereu, S. and Lleras, A. *Differential color congruency effects across metacontrast and object substitution masking in equiluminant viewing conditions*. Presented at the 20th Symposium of the International Colour Vision Society, Braga, Portugal.
- Mathewson, K. E., Fabiani, M., Gratton, G., Beck, Diane, M., & Lleras, A. *Making waves in the stream of consciousness: Eliciting predictable oscillations in visual awareness with visual entrainment at 12 Hz*. Presented at the 2009 European Conference on Visual Perception, Regensburg, Germany.
- Levinthal, B. R., & Lleras, A. *Learning to reject: over repeated trials, feature-specific inhibitory biases are strengthened, whereas inter-trial feature contingencies are not learned*. Poster presented at the 2009 Annual Meeting of the Vision Sciences Society, Naples, Florida.
- Chu, H., & Lleras, A. *Order effects determine whether irrelevant stimuli are scrutinized in preview and conjunction search*. Poster presented at the 2009 Annual Meeting of the Vision Sciences Society, Naples, Florida.
- Ahn, J., Beck, D. M., & Lleras, A. *Individual visual short-term memory capacity predicts the number of conjunction errors in Treisman’ illusory conjunction task*. Poster

presented at the 2009 Annual Meeting of the Vision Sciences Society, Naples, Florida.

Lleras, A., Chen, H., & Levinthal, B. R. *Categorical effects of working memory load on the selection of pop-out categorical oddballs*. Poster presented at the 2009 Annual Meeting of the Vision Sciences Society, Naples, Florida.

Lleras, A. *Implicit evaluations of "information utility" produce strong attentional biases: the case of inhibition*. Invited Colloquium, Cognitive Psychology, Washington University in Saint Louis, MO, June 3, 2009.

Lleras, A. *What went wrong here? Implicit evaluations of "information usefulness" produce strong attentional biases*. Invited Colloquium, Cognitive Psychology, University of Iowa. February 25, 2009.

Lleras, A. *The remains of the trial: goal determined inter-trial suppression of selective attention*. Invited Talk at the International Conference on Attention. Allahabad, India, December 7-10, 2008.

Kawahara, J., & Lleras, A. *Inter-trial inhibition of focused attention in oddball search*. Poster presented at the 2008 Annual Meeting of the Psychonomics Society, Chicago, IL.

Levinthal, B., & Lleras, A. *Context-free inhibition: attentional biases transfer strongly across temporal and spatial search tasks*. Talk presented at the 2008 Annual OPAM Workshop (Object Perception Attention and Memory), Chicago, IL.

Caddigan, A., & Lleras, A. *Looking at oddballs: Target absence influences attention and eye movements in pop-out search*. Poster presented at the 2008 Annual OPAM Workshop (Object Perception Attention and Memory), Chicago, IL.

Lleras, A., & Thomas, L. E. *Swinging into Thought! Directed body movements guide thought towards insight in problem solving*. Invited Talk at the Embodied Cognition and Problem Solving Symposium at the 2008 Annual Convention of the Association for Psychological Science, Chicago, IL. May 24, 2008.

Lleras, A., Ahn, J. W., Levinthal, B., & Beck, D. *Neural correlates of inhibition to individual members of complex visual categories that have been recently rejected as distracting*. Talk presented at the 2008 Annual Meeting of the Vision Sciences Society, Naples, Florida.

Thomas, L. E., & Lleras, A. *Moving thought: directed movement guides insight in problem solving*. Poster presented at the 2008 Annual Meeting of the Vision Sciences Society, Naples, Florida.

Chu, H., & Lleras, A. *Semantic marking in preview search*. Poster presented at the 2008 Annual Meeting of the Vision Sciences Society, Naples, Florida.

Ahn, J. W., & Lleras, A. *Executive working memory load does not interfere with the rapid resumption of an interrupted visual search*. Poster presented at the 2008 Annual Meeting of the Vision Sciences Society, Naples, Florida.

Levinthal, B. & Lleras, A. *Simultaneous feature-based inhibition of attention along multiple dimensions*. Poster presented at the 2008 Annual Meeting of the Vision Sciences Society, Naples, Florida.

Ahn, J. W., Levinthal, B. R., Lleras, A., & Beck, D. *Neural correlates of category-invariant attentional inhibition produced by rejected visual distractors*. Poster presented at the Annual meeting of the Cognitive Neuroscience Society, San Francisco, CA, April 12-15, 2008.

Lleras, A., & Levinthal, B. *Intertrial biasing of selective attention leads to blink-like misses in RSVP streams*. Talk presented at the 2007 Annual Meeting of the Psychonomics Society, Long Beach, California.

Lleras, A. & Thomas, L. E. *Directed movements guide problem solving*. Invited Talk presented at the University of Chicago, October 31, 2007.

Thomas, L., & Lleras, A. *Inhibitory tagging in an interrupted visual search*. Talk presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Levinthal, B., & Lleras, A. *Does the distractor preview effect extend to search-irrelevant features?* Poster presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Chu, H., Levinthal, B. & Lleras, A. *What is being marked in visual marking?* Poster presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Ahn, J., & Lleras, A. *Spatial working memory loads can reduce search efficiency but not the rates of rapid resumption in interrupted visual search*. Poster presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A., & Ambinder, M. *How to kill a fly: on the difficulties of tracking a smooth and sometimes saccadic moving target*. Poster presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Shin, E., Wan, X. I., Fabiani, M., Gratton, G., & Lleras, A. *Electrophysiological evidence of inhibition of focused attention in the distractor previewing effect*. Poster presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Bennett, J. D., Lleras, A., Oriet, C., & Enns, J. T. *A negative compatibility effect in priming of emotional faces*. Poster presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Polychronopoulos, K., Levinthal, B., Kawahara, J., & Lleras, A. *Inter-trial suppression of selective attention in RSVP streams*. Poster presented at the 2007 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Levinthal, B., & Lleras, A. *The Unique Contributions of Retinal Size and Perceived Size on Change Detection*. Talk presented at the 2006 annual meeting of the Object Perception, Attention and Memory conference. Houston, Texas.

Endo, N., Boot, W. R., Kramer, A. F., Lleras, A., & Kumada, T. *Spatial Context Learning and Switching Strategy*. Poster presented at the 2006 Annual Meeting of the Psychonomic Society, Houston, Texas.

van Zoest, W., Lleras, A., Kingstone, A. & Enns, J. T. *Target fixation does not guarantee rapid resumption of an interrupted search*. Paper presented at a workshop of The 28th Annual Conference of the Cognitive Science Society, Vancouver, Canada.

Lleras, A., & Ambinder, M. S. *Missing T1 and missing T2 in an RSVP stream: Does T2's presence help T1 identification?* Poster presented at the 2006 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Wan, X. I., & Lleras, A. *Features and suppression: What perceptual features afford suppression in the distractor previewing effect?* Poster presented at the 2006 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Thomas, L. E., & Lleras, A. *Moving eyes and moving thought: The spatial compatibility between eye movements and cognition*. Poster presented at the 2006 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

van Zoest, W., Lleras, A., Kingstone, A. & Enns, J. T. *But you're starting right at it! Rapid Resumption is not predicted by eye position alone*. Poster presented at the 2006 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A., & Enns, J.T. *Rapid Resumption Of Visual Search Is More Than Lucky Spatial Orienting*. Poster presented at the 2005 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A., & Kawahara, J. *Temporal dynamics of suppression in the distractor previewing effect*. Poster presented at the 2005 Annual Meeting of the Psychonomic Society, Toronto, CA.

Simons, D. J., Slichter, D. P., Lleras, A., Martinez-Conde, S., Nevarez, G., & Caddigan, E. *Induced fading of natural scenes*. Talk presented at the 2005 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Thomas, L.E., Ambinder, M.S., Hsieh, B., Levinthal, B., Crowell, J.A., Irwin, D.E., Kramer, A.F., Lleras, A., Simons, D.J., Wang, R.F. *Fruitful visual search: Inhibition of return in a virtual foraging task*. Poster presented at the 2005 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Levinthal, B. R., Ambinder, M. S., Thomas, L. E., Gosney, J., Hsieh, B., Lipes, G. A., Wang, R., Crowell, J. A., Simons, D. J., Irwin, D. E., Kramer, A. F., & Lleras, A. *The binding of features in visual short-term memory*. . Poster presented at the 2005 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A., Rensink, R.A., Enns, J.T. *The role of scene stability in the resumption of visual search*. Poster presented at the 2004 Annual Meeting of the Psychonomic Society, Minneapolis, MN.

Lleras, A., Rensink, R.A., Enns, J.T. *Rapid Resumption is modulated by high-level strategies*. Talk presented at the 2004 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Ariga, A., Lleras, A., & Kawahara, J. *Task relevance and response suppression in the distractor previewing effect*. Poster presented at the 2004 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Judd, A., Sim, J., Cho, J., von Mühlenen, A., & Lleras, A. *Motion perception, awareness and attention effects with looming motion*. Poster presented at the 2004 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A., & von Mühlenen, A. *Does Loom Cueing Occur with Brightness-Defined Motion?* Poster presented at the 2003 Annual Meeting of the Psychonomic Society, Vancouver, B.C., Canada.

Von Mühlenen, A., & Lleras, A. *Looming Motion with Random-Dot Patterns Attracts Attention*. Talk presented at the 2003 Annual Meeting of the Psychonomic Society, Vancouver, B.C., Canada.

Enns, J. T., Rensink, R. A., Vandenbeld, L., & Lleras, A. *Rapid Resumption: A New Form of Memory in Visual Search*. Talk presented the 2003 Annual Meeting of the Psychonomic Society, Vancouver, B.C., Canada.

Enns, J. T., Lleras, A., & Di Lollo, V. *Three aspects of visual masking are informed by reentrant modeling: object substitution, feature migration, and action priming*. Talk presented at “The First Half Second” conference organized by Bruno Breitmeyer and Haluk Ogmen, University of Houston, November 1-3, 2003.

Lleras, A., & Enns, J.T. *Negative Compatibility in Masking: Unconscious Inhibition or New Feature Priming?* Poster presented at the 2003 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Moore, C.M., & Lleras, A., *Object-Token Individuation Protects Targets from Object Substitution Masking*. Poster presented at the 2003 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A., & Moore, C.M. *Perception during perceptual filling-in*. Poster presented at the 2002 Annual Meeting of the Psychonomic Society, Kansas City, MO.

Moore, C.M., & Lleras, A. *Isolating the object component of Object Substitution Masking*. Poster presented at the meeting of Attention & Performance XX, Functional Brain Imaging of Visual Cognition, Erice, Sicily.

Moore, C.M., & Lleras, A. *Object Substitution Masking and object-token individuation*. Talk at the 2002 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A. *Probe-detection during Troxler fading: a new way to study an old phenomenon*. Invited talk at the High Level Vision Lab at the Massachusetts Institute of Technology, March 8th, 2002.

Lleras, A., & Moore, C.M. *Masking without a mask*. Presentation at the 5th Annual Perception and Attention Mini-Conference at the 2002 Eastern Psychological Association Meeting, Boston, MA.

Lleras, A. *Temporal dynamics of perceptual filling-in*. Invited talk at the Perception and Neuroscience Lab at Princeton University, January 18, 2002.

Lleras, A., & Moore, C. M. *Introducing a Probe-Detection Technique for the Study of the Troxler Fading Effect*. Poster presented at the 2001 Annual Meeting of the Psychonomic Society, Orlando, Florida

Lleras, A., & Moore, C. M. *Attentional Modulation of Troxler Fading*. Poster at the 2001 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Moore, C. M., Lleras, A., & Grosjean, M. *Perception and action under conditions of inattention*. Poster presented at the 2001 Annual Meeting of the Vision Sciences Society, Sarasota, Florida.

Lleras, A., & Moore, C. M. *Relating peripheral fading to attentional selection*. Presentation at the 4th Annual Perception and Attention Mini-Conference at the Eastern Psychological Association Meeting, Washington D.C.

Moore, C. M., Grosjean, M., & Lleras, A. *Evidence of inattentive perceptual completion of occluded and illusory contours*. Presentation at the 2000 Annual Meeting of the Psychonomic Society, New Orleans, Louisiana.

Lleras-Salazar, A., Moore, C. M., & Mordkoff, J. T. *Where is attention in a Simon task?* Poster presented at the 2000 Annual Meeting of the Association for Research in Vision and Ophthalmology, Fort Lauderdale, Florida.