

Hans Colonius

Curriculum Vitae

April 2017

Address: Department of Psychology, Oldenburg University,
D-26111, Germany.

Phone: +49 441 798 5158

Cell: +49 157 30200389

Email: hans.colonius@uni-oldenburg.de

WWW: <http://www.uni-oldenburg.de/en/hans-colonius/>

Education and Qualifications

1969-73	Psychology (diploma)	Göttingen U., Braunschweig U.
1970-72	Mathematics (pre-diploma)	Braunschweig U.
1973-74	Mathematics	University of Nice (France)
1976	Ph.D. (Dr. rer. nat.)	Braunschweig U.
1982	Habilitation (Dr. rer. nat. habil., Psychology)	Braunschweig U.

Research Areas

Main: mathematical psychology, cognitive psychology, psychophysics

Specific: multisensory integration, reaction time analysis, dissimilarity measurement, choice and decision making

I have authored 112 papers, chapters or books on my research topics. A list of these appears on pages 3–8.

Career

1974-78	Research Assistant, Department of Psychology, Braunschweig University
1978-79	Visiting Research Fellow, Department of Psychology, New York University
1980-83	Research Assistant, Department of Psychology, Braunschweig University
1983-87	Professor, Department of Psychology, Oldenburg University
1988-91	Associate/Full Professor (tenure offered), Dept. of Psychology, Purdue University
1991-	Professor of Psychology, Oldenburg University
2016-	Adjunct Professor, Department of Psychological Sciences, Purdue University

I held several *visiting professorships*: U. of Montpellier (France), Purdue U. (Indiana), Northwestern U. (Illinois), Trento U. (Italy)

Honors and Awards

1971-74	Graduate Scholarship, Studienstiftung des Deutschen Volkes
1983	Heisenberg Professor Fellowship, German Science Foundation (DFG)
1987	Fellowship, German Academic Exchange Service (DAAD)
1987-88	Fellowship Volkswagen-Foundation
1996/2003	host to two awardees of the <i>Humboldt Research Award</i> : Thomas S. Wallsten / Ehtibar N. Dzhafarov

Editorial Activity

- 1985–1998 *Psychological Research* (editorial board member)
1995–2000 *Journal of Mathematical Psychology*, Editor-in-Chief
2001–2013 *Journal of Mathematical Psychology*, Editorial Board member
2014–pres. *Journal of Mathematical Psychology*, Editorial Advisory Board member
2011–pres. *Frontiers in Quantitative Psychology and Measurement* (associate editor)
2010–pres. *Frontiers in Integrative Neuroscience* (consulting editor)
2004–pres. *Advanced Book Series on Mathematical Psychology* (co-editor, World Sci. Publ.)
2006–pres. TPM - *Testing, Psychometrics, Methodology* (editorial board member)
2013–pres. Co-editor, *New Handbook of Mathematical Psychology* (Cambridge U. Press)

Reviewer for

Acta Psychologica, Attention, Perception and Performance, Behavior Research Methods, Biological Cybernetics, Brain Research, Brain Topography, British Journal of Mathematical and Statistical Psychology, Current Biology, European Journal of Neuroscience, Experimental Brain Research, Journal of the Acoustical Society of America, Journal of Cognitive Neuroscience, Journal of Neuroscience, Journal of Experimental Psychology: Human Perception & Performance, Neuropsychologia, PNAS, Psychological Bulletin and Review, Psychological Review, Psychological Science, Psychometrika, Vision Research, and others

Ad-hoc reviewer for

German Science Foundation (DFG), Humboldt Foundation, National Science Foundation, NSERC, National Science Centre Poland, Australian Science Foundation, Human Brain Project (panel member), and various departments of psychology in Australia, Europe & USA/Canada

Membership in professional societies

American Psychological Association, American Psychological Society, Society for Mathematical Psychology (Executive Board member), European Mathematical Psychology Group (Executive Board member), Acoustical Society of America, American Statistical Association, British Psychological Society, Classification Society of North America, European Society for Cognitive Psychology, International Society for Psychophysics, Institute of Mathematical Statistics, Psychometric Society, Psychonomic Society, Society for Industrial and Applied Mathematics, Society for Judgment and Decision Making

Grant support (since 1992)

2013–2017	Cluster of Excellence Hearing4All, DFG (German Science Foundation)	€ 320k
2005–2017	Sonderforschungsbereich TRR31 Active Listening (DFG)	€ 600k
2013–2016	Critical Systems Engineering (Interdisciplinary Research Center)	€ 99k
2006–2009	Fechnerian Scaling, NSF (SES-0620446), with EN Dzhafarov	USD 250k
2006–2008	Regular Minimality, AFOSR (FA9550-06-1-0288), with EN Dzhafarov	USD 330k
2003–2005	Multisensory Integration, DFG, with A. Diederich	€ 300k
2006–2017	Sokrates/Erasmus Intensive Program (IP-project28629), per year about	€ 32k
2001–2003	Multidimensional Fechnerian Scaling, Humboldt Foundation	DM 53.7k
1999–2001	Fechnerian Psychophysics. DFG	DM 160k
1999–2001	Psychophysics of visual-auditory interaction, SFB Neurokognition	DM 418,2k
1996–1998	Visual–auditory interaction, DFG/SFB Neurokognition	DM 395k
1997–1999	Psychoacoustics and Noise, DFG	DM 148k
1996–1998	German-American Comm. on Collab Res/DAAD, with TS Wallsten	
1994–1997	NSERC grant, with with AAJ Marley, J Aczel, H Joe, J Myung	
1992–1996	German-American Comm. on Collab Res/DAAD, with JT Townsend.	

Publications

Submitted papers

1. Colonius, H., F. Wolff, and A. Diederich (2017). Trimodal race model inequalities in multisensory integration: I. Basics. *Frontiers in Psychology*.

Books

1. *Stochastic theories of individual choice behaviour: the random utility approach* (in preparation). Springer.
2. Colonius, H. (1984). *Stochastische Theorien individuellen Wahlverhaltens*. Springer-Verlag.
3. Wender, K. F., H. Colonius, and H.-H. Schulze (1980). *Modelle des menschlichen Gedächtnisses*. Kohlhammer.

Edited Books

1. Batchelder, W., H. Colonius, E. Dzhafarov, and J. Myung, eds. (2017). *New Handbook of Mathematical Psychology*. Vol. 1. Cambridge Univ Press.
2. Colonius, H. and E. N. Dzhafarov (2006). *Measurement and representation of sensations*. Psychology Press.

Refereed research papers

1. Colonius, H. and A. Diederich (2017). Measuring multisensory integration: from reaction times to spike counts. *Scientific Reports*.
2. Baum, S., H. Colonius, A. Thelen, C. Micheli, and M. Wallace (2016). Above the mean: Examining variability in behavioral and neural responses to multisensory stimuli. *Multisensory Research* **29**, 663–678.
3. Colonius, H. (2016). An invitation to coupling and copulas, with applications to multisensory modeling. *Journal of Mathematical Psychology*, [dx.doi.org/10.1016/j.jmp.2016.02.004](https://doi.org/10.1016/j.jmp.2016.02.004) **74**, 2–10.
4. Diederich, A., H. Colonius, and F. I. Kandil (2016). Prior knowledge of spatiotemporal configuration facilitates crossmodal saccadic response: A TWIN analysis. *Experimental Brain Research* **234**(7), 2059–76.

5. Colonius, H. (2015). Behavioral Measures of Multisensory Integration: Bounds on Bimodal Detection Probability. *Brain Topography* **28**(1), 1–4.
6. Diederich, A. and H. Colonius (2015). The time window of multisensory integration: Relating reaction times and judgments of temporal order. *Psychological Review* **122**(2), 232–41.
7. Medina, J. M., W. Wong, J. A. Díaz, and H. Colonius (2015). Advances in modern mental chronometry. *Frontiers in Human Neuroscience* **9**, 256.
8. Mendonça, C., S. van de Par, and H. Colonius (2015). On recent findings and clarifications regarding the ventriloquist aftereffect. *Experimental Brain Research*. DOI 10.1007/s00221-015-4410-x.
9. Mendonça, C., A. Escher, S. van de Par, and H. Colonius (2015). Predicting auditory space calibration from recent multisensory experience. *Experimental Brain Research* **233**, 1983–1991.
10. Gulberti, A., P. A. Arndt, and H. Colonius (2014). Stopping eyes and hands: evidence for non-independence of stop and go processes and for a separation of central and peripheral inhibition. *Frontiers in Human Neuroscience* **8**, 61.
11. Kandil, F. I., A. Diederich, and H. Colonius (2014). Parameter recovery for the time-window-of-integration (TWIN) model of multisensory integration in focused attention. *Journal of Vision* **14**(11), 1–20.
12. Steenken, R., L. Weber, H. Colonius, and A. Diederich (2014). Designing driver assistance systems with crossmodal signals: multisensory integration rules for saccadic reaction times apply. *PloS One* **9**(5), e92666.
13. Spreckelmeyer, K. N., E. Altenmüller, H. Colonius, and T. F. Münte (2013). Preattentive processing of emotional musical tones: a multidimensional scaling and ERP study. *Frontiers in Psychology* **4**, 656, 1–11.
14. Colonius, H. and A. Diederich (2012). Focused attention vs. crossmodal signals paradigm: deriving predictions from the time-window-of-integration model. *Frontiers in Integrative Neuroscience* **6**, 62.
15. Diederich, A., A. Schomburg, and H. Colonius (2012). Saccadic reaction times to audiovisual stimuli show effects of oscillatory phase reset. *PloS One* **7**(10), e44910.
16. Colonius, H. and A. Diederich (2011). Computing an optimal time window of audiovisual integration in focused attention tasks: illustrated by studies on effect of age and prior knowledge. *Experimental Brain Research* **212**(3), 327–337.
17. Dzhafarov, E. N. and H. Colonius (2011). The Fechnerian idea. *American Journal of Psychology* **124**(2), 127–140.
18. Dzhafarov, E. N., A. Ünlü, M. Trendtel, and H. Colonius (2011). Matrices with a given number of violations of Regular Minimality. *Journal of Mathematical Psychology* **55**(3), 240–250.
19. Rach, S., A. Diederich, and H. Colonius (2011). On quantifying multisensory interaction effects in reaction time and detection rate. *Psychological Research* **75**(2), 77–94.
20. Colonius, H. and A. Diederich (2010). The optimal time window of visual-auditory integration: a reaction time analysis. *Frontiers in Integrative Neuroscience* **4**, <http://dx.doi.org/10.3389/fnint.2010.00011>.
21. Rach, S., A. Diederich, R. Steenken, and H. Colonius (2010). The race model inequality for censored reaction time distributions. *Attention, Perception, & Psychophysics* **72**(3), 839–847.
22. Colonius, H., A. Diederich, and R. Steenken (2009). Time-window-of-integration (TWIN) model for saccadic reaction time: effect of auditory masker level on visual-auditory spatial interaction in elevation. *Brain Topography* **21**(3-4), 177–184.
23. Diederich, A. and H. Colonius (2009). Crossmodal interaction in speeded responses: time window of integration model. *Progress in Brain Research* **174**, 119–135.
24. Diederich, A. and H. Colonius (2008). Crossmodal interaction in saccadic reaction time: separating multisensory from warning effects in the time window of integration model. *Experimental Brain Research* **186**(1), 1–22.

25. Diederich, A. and H. Colonius (2008). When a high-intensity “distractor” is better than a low-intensity one: modeling the effect of an auditory or tactile nontarget stimulus on visual saccadic reaction time. *Brain Research* **1242**, 219–230.
26. Diederich, A., H. Colonius, and A. Schomburg (2008). Assessing age-related multisensory enhancement with the time-window-of-integration model. *Neuropsychologia* **46**(10), 2556–2562.
27. Steenken, R., H. Colonius, A. Diederich, and S. Rach (2008). Visual–auditory interaction in saccadic reaction time: Effects of auditory masker level. *Brain Research* **1220**, 150–156.
28. Steenken, R., A. Diederich, and H. Colonius (2008). Time course of auditory masker effects: Tapping the locus of audiovisual integration? *Neuroscience Letters* **435**(1), 78–83.
29. Diederich, A. and H. Colonius (2007). Modeling spatial effects in visuotactile saccadic reaction time. *Perception & Psychophysics* **69**(1), 56–67.
30. Diederich, A. and H. Colonius (2007). Why two “distractors” are better than one: modeling the effect of non-target auditory and tactile stimuli on visual saccadic reaction time. *Experimental Brain Research* **179**(1), 43–54.
31. Dzhafarov, E. N. and H. Colonius (2007). Dissimilarity cumulation theory and subjective metrics. *Journal of Mathematical Psychology* **51**(5), 290–304.
32. Åkerfelt, A., H. Colonius, and A. Diederich (2006). Visual-tactile saccadic inhibition. *Experimental Brain Research* **169**(4), 554–563.
33. Colonius, H. and A. Diederich (2006). The race model inequality: interpreting a geometric measure of the amount of violation. *Psychological Review* **113**(1), 148–154.
34. Dzhafarov, E. N. and H. Colonius (2006). Reconstructing distances among objects from their discriminability. *Psychometrika* **71**(2), 365–386.
35. Dzhafarov, E. N. and H. Colonius (2005). Psychophysics without physics: A purely psychological theory of Fechnerian Scaling in continuous stimulus spaces. *Journal of Mathematical Psychology* **49**(1), 1–50.
36. Dzhafarov, E. N. and H. Colonius (2005). Psychophysics without physics: Extension of Fechnerian scaling from continuous to discrete and discrete-continuous stimulus spaces. *Journal of Mathematical Psychology* **49**(2), 125–141.
37. Kirchner, H. and H. Colonius (2005). Cognitive control can modulate intersensory facilitation: speeding up visual antisaccades with an auditory distractor. *Experimental Brain Research* **166**(3–4), 440–444.
38. Kirchner, H. and H. Colonius (2005). Interstimulus contingency facilitates saccadic responses in a bimodal go/no-go task. *Cognitive Brain Research* **25**(1), 261–272.
39. Townsend, J. T. and H. Colonius (2005). Variability of the MAX and MIN Statistic: A Theory of the Quantile Spread as a Function of Sample Size. *Psychometrika* **70**(4), 759–772.
40. Colonius, H. and A. Diederich (2004). Multisensory interaction in saccadic reaction time: a time-window-of-integration model. *Journal of Cognitive Neuroscience* **16**(6), 1000–1009.
41. Colonius, H. and A. Diederich (2004). Why aren’t all deep superior colliculus neurons multisensory? A Bayes’ ratio analysis. *Cognitive, Affective, & Behavioral Neuroscience* **4**(3), 344–353.
42. Diederich, A. and H. Colonius (2004). Bimodal and trimodal multisensory enhancement: effects of stimulus onset and intensity on reaction time. *Perception & Psychophysics* **66**(8), 1388–1404.
43. Kirchner, H. and H. Colonius (2004). Predictiveness of a visual distractor modulates saccadic responses to auditory targets. *Experimental Brain Research* **155**(2), 257–260.
44. Arndt, P. A. and H. Colonius (2003). Two stages in crossmodal saccadic integration: evidence from a visual-auditory focused attention task. *Experimental Brain Research* **150**(4), 417–426.
45. Diederich, A., H. Colonius, D. Bockhorst, and S. Tabeling (2003). Visual-tactile spatial interaction in saccade generation. *Experimental Brain Research* **148**(3), 328–337.
46. Özyurt, J., H. Colonius, and P. A. Arndt (2003). Countermanding saccades: Evidence against independent processing of go and stop signals. *Perception & Psychophysics* **65**(3), 420–428.

47. Colonius, H. and A. Diederich (2002). A maximum-likelihood approach to modeling multisensory enhancement. *Advances in neural information processing systems* **14**, 181–188.
48. Colonius, H. and P. Arndt (2001). A two-stage model for visual-auditory interaction in saccadic latencies. *Perception & Psychophysics* **63**(1), 126–147.
49. Colonius, H., J. Özyurt, and P. A. Arndt (2001). Countermanding saccades with auditory stop signals: testing the race model. *Vision Research* **41**(15), 1951–1968.
50. Dzhafarov, E. N. and H. Colonius (2001). Multidimensional Fechnerian Scaling: Basics. *Journal of Mathematical Psychology* **45**(5), 670–719.
51. Van Zandt, T., H. Colonius, and R. W. Proctor (2000). A comparison of two response time models applied to perceptual matching. *Psychonomic Bulletin & Review* **7**(2), 208–256.
52. Colonius, H. (1999). A theorem on parallel processing models with a generalized stopping rule. *Mathematical Social Sciences* **38**(3), 247–258.
53. Dzhafarov, E. N. and H. Colonius (1999). Fechnerian metrics in unidimensional and multidimensional stimulus spaces. *Psychonomic Bulletin & Review* **6**(2), 239–268.
54. Colonius, H. and W. Ellermeier (1997). Distribution inequalities for parallel models of reaction time with an application to auditory profile analysis. *Journal of Mathematical Psychology* **41**(1), 19–27.
55. Gockel, H. and H. Colonius (1997). Auditory profile analysis: Is there perceptual constancy for spectral shape for stimuli roved in frequency? *The Journal of the Acoustical Society of America* **102**(4), 2311–2315.
56. Townsend, J. T. and H. Colonius (1997). Parallel processing response times and experimental determination of the stopping rule. *Journal of Mathematical Psychology* **41**(4), 392–397.
57. Colonius, H. (1996). Set-theoretic foundations for a theory of human memory. *Behavioral and Brain Sciences* **19**(03), 559–559.
58. Colonius, H. (1995). The instance theory of automaticity: Why the Weibull? *Psychological Review* **102**(4), 744–750.
59. Colonius, H. and D. Vorberg (1994). Distribution inequalities for parallel models with unlimited capacity. *Journal of Mathematical Psychology* **38**(1), 35–58.
60. Marley, A. A. J. and H. Colonius (1992). The “horse race” random utility model for choice probabilities and reaction times, and its competing risks interpretation. *Journal of Mathematical Psychology* **36**(1), 1–20.
61. Colonius, H. (1991). Founding cognitive science on the arrow of time? Review of Maria Nowakowska. *Cognitive Sciences. Basic Problems, New Perspectives, and Implications for Artificial Intelligence*. Orlando, FL: Academic Press, 1986. Pp. ix+ 379. *Journal of Mathematical Psychology* **35**, 122–130.
62. Diederich, A. and H. Colonius (1991). A further test of the superposition model for the redundant-signals effect in bimodal detection. *Perception & Psychophysics* **50**(1), 83–86.
63. Colonius, H. (1990). A note on the stop-signal paradigm, or how to observe the unobservable. *Psychological Review* **97**(2), 309–312.
64. Colonius, H. (1990). Possibly dependent probability summation of reaction time. *Journal of Mathematical Psychology* **34**(3), 253–275.
65. Colonius, H. (1988). Modeling the redundant signals effect by specifying the hazard function. *Attention, Perception, & Psychophysics* **43**(6), 604–606.
66. Colonius, H. (1987). Modeling dependent processing in reaction time analysis. *Progress in Mathematical Psychology* **1**, 197–207.
67. Diederich, A. and H. Colonius (1987). Intersensory facilitation in the motor component? *Psychological Research* **49**(1), 23–29.
68. Colonius, H. (1986). Measuring channel dependence in separate activation models. *Perception & Psychophysics* **40**(4), 251–255.

69. Pohl, R., H. Colonius, and M. Thüring (1985). Recognition of script-based inferences. *Psychological Research* 47(1), 59–67.
70. Colonius, H. (1983). A characterization of stochastic independence by association, with an application to random utility theory. *Journal of Mathematical Psychology* 27(1), 103–106.
71. Weber, G. and H. Colonius (1983). Subjective representation of velocity in verbs of motion. *Psychological Research* 45(1), 73–90.
72. Glowalla, U. and H. Colonius (1982). Toward a model of macrostructure search. *Advances in Psychology* 8, 111–123.
73. Colonius, H. (1981). A new interpretation of stochastic test models. *Psychometrika* 46(2), 223–225.
74. Colonius, H. and H. H. Schulze (1981). Tree structures for proximity data. *British Journal of Mathematical and Statistical Psychology* 34(2), 167–180.
75. Colonius, H. (1980). Representation and uniqueness of the Bradley–Terry–Luce model for pair comparisons. *British Journal of Mathematical and Statistical Psychology* 33(1), 99–103.
76. Colonius, H. (1979). Latent trait models as probabilistic measurement structures. *Archiv für Psychologie* 132(3), 183–186.
77. Colonius, H. and H.-H. Schulze (1979). Tree structure representation of non-numerical similarity data. *Psychologische Beiträge* 21(1), 98–111.
78. Colonius, H. (1978). On weak extensive measurement. *Philosophy of Science* 45, 303–308.
79. Colonius, H. (1977). On Keats' generalization of the rasch model. *Psychometrika* 42(3), 443–445.

Book chapters

1. Colonius (2017). “Selected concepts from probability”. In: *New Handbook of Mathematical Psychology*. Ed. by W. Batchelder, H. Colonius, E. Dzhafarov, and J. Myung. Vol. 1. Oxford University Press, pp.1–84.
2. Colonius, H. (2016). “Stochastic orders of variability”. In: *Mathematical Models of Perception and Cognition Volume I: A Festschrift for James T. Townsend*. Ed. by J. Houpt and L. Blaha. Scientific Psychology Series. UK. London: Taylor and Francis, pp.37–46.
3. Colonius, H. (2015). “From coupling to copula”. In: *Contextuality from Quantum Physics to Psychology*. Ed. by E. N. Dzhafarov, S. Jordan, R. Zhang, and V. Cervantes. Vol. 6. Advanced Series on Mathematical Psychology. World Scientific Publ., pp.51–62.
4. Colonius, H. and A. Marley (2015). “Decision and choice: random utility models of choice and response time.” In: *International Encyclopedia of the Social & Behavioral Sciences*. Ed. by J. Wright. second edition. Vol. 5. Oxford University Press, pp.901–905.
5. Colonius, H. and A. Diederich (2012). “Intersensory Facilitation”. In: *Encyclopedia of the Sciences of Learning*. Springer, pp.1635–1638.
6. Diederich, A. and H. Colonius (2012). “Modeling Multisensory Processes in Saccadic Responses”. In: *The Neural Bases of Multisensory Processes*. Ed. by M. M. Murray and M. T. Wallace. Boca Raton (FL): CRC Press.
7. Colonius, H. and A. Diederich (2011). “The Multisensory Driver: Contributions from the Time-Window-of-Integration Model”. In: *Human Modelling in Assisted Transportation*. Springer, pp.363–371.
8. Dzhafarov, E. N. and H. Colonius (2006). “Reconstructing distances among objects from their discriminability”. In: ed. by H. Colonius and E. N. Dzhafarov. Psychology Press, pp. 47–88.
9. Dzhafarov, E. N. and H. Colonius (2006). “Regular Minimality: A fundamental law of discrimination”. In: ed. by H. Colonius and E. N. Dzhafarov. Psychology Press, pp. 1–46.
10. Diederich, A. and H. Colonius (2004). “Modeling the time course of multisensory interaction in manual and saccadic responses”. In: *The handbook of multisensory processes*. Ed. by G. Calvert, C. Spence, and B. E. Stein. MIT Press. Chap. 24, pp.395–408.
11. Colonius, H. and A. Diederich (2002). “A stochastic model of multimodal integration in saccadic responses”. In: ed. by R. P. Würtz and M. Lappe, pp. 321–326.

12. Colonius, H. and J. T. Townsend (1997). "Activation-state representation of models for the redundant-signals-effect." In: *Choice, Decision, and Measurement: Essays in honor of R. Duncan Luce*. Ed. by A. A. J. Marley. Lawrence Erlbaum Associates Publishers.
13. Colonius, H. (1993). Complete consensus and order independence: relating ranking and choice. In: *Proceedings of the Joint AMS-SIAM Summer Research Conference on Probability Models and Statistical Analysis of Ranking Data*. Ed. by M. Fligner and J. Verducci. Vol. 80. Springer Lecture Notes in Statistics. Springer-Verlag, pp.284–288.

Papers in conference proceedings

1. Colonius, H. and A. Diederich (2014). Recalibration of the Multisensory Temporal Window of Integration. *Procedia-Social and Behavioral Sciences* **126**, 67–68.
2. Mendonça, C., M. Hiipakka, S. van de Par, and H. Colonius (2014). Adaptation to Non-Individualized Spatial Sound Through Audiovisual Experience. In: *Audio Engineering Society Conference: 55th International Conference: Spatial Audio*. Audio Engineering Society.
3. Colonius, H. and A. Diederich (2013). Response time variability and stage dependence in the time-window-of-integration model. *Multisensory Research* **26**, 129–129.
4. Dzhafarov, E. N. and H. Colonius (2013). G. Th. Fechner: Correcting historical misrepresentations. In: *Fechner Day 2013*. Proceedings of the 29th Annual Meeting of the International Society for Psychophysics, pp.51.
5. Colonius, H. and A. Diederich (2011). Optimal time windows of integration. *i-Perception* **2**(8), 816–816.
6. Diederich, A. and H. Colonius (2011). Modeling multisensory integration across different experimental paradigms. *i-Perception* **2**(8), 817–817.
7. Colonius, H. and A. Diederich (2007). A measure of auditory-visual integration efficiency based on Fechnerian Scaling. In: *Audio-Visual Speech Processing (AVSP2007)*. Hilvarenbeek, The Netherlands, pp.1–5.
8. Colonius, H. and A. Diederich (2006). Distance From Discriminability: A Fechnerian Scaling Approach to Multisensory Integration. In: *Workshop on Biologically Inspired Information Fusion*, pp.2–3.
9. Heuermann, H. and H. Colonius (2001). Spatial and temporal factors in visual-auditory interaction. In: *Proceedings of the Seventeenth Meeting of the International Society for Psychophysics*. Ed. by E. Sommerfeld, R. Kompass, and T. Lachmann. Lengerich: Pabst Science Publishers, pp.118–123.
10. Zimmer, K. and H. Colonius (2000). Testing a new theory of Fechnerian scaling: The case of auditory intensity discrimination. In: vol. 108. 5. Acoustical Society of America, pp.2596–2596.
11. Heuermann-Mehmood, H. and H. Colonius (1999). Localization experiments with saccadic responses in virtual auditory environments. In: vol. 105. 2. Acoustical Society of America, pp.1391–1392.
12. Gockel, H. and H. Colonius (1995). Identification of the incremented component in profile stimuli. In: vol. 97. 5. Acoustical Society of America, pp.3272–3272.
13. Colonius, H. (1989). Probability summation of binocular reaction-times-dependent or independent. In: vol. 27. 6. Philosophical Research Online, pp.525–525.

Editorials

1. Colonius, H. (1995). Editorial. *Journal of Mathematical Psychology* Volume 39 Issue 1.

Recent Talks (selected)

1. The role of coupling and copulas in multisensory integration *Australasian Mathematical Psychology Conference, Brisbane, February 2017*

2. Coupling and copulas in multisensory integration *The University of Newcastle, NSW, February 9, 2017*
3. A new measure of multisensory integration. *17th International Multisensory Research Forum, Suzhou, China, June 2016*
4. Multisensory integration: Models and methods. *Dept. Psych. Sciences, UC Irvine, May 2016 (invited)*
5. A new measure of multisensory integration in a single neuron based on coupling, *16th International Multisensory Research Forum, Pisa, June 2015*
6. Comparison of multiple linear regression with random forests to characterize hearing performance, *Fourth Joint Statistical Meeting of the Deutsche Arbeitsgemeinschaft Statistik, Goettingen University, March 2016 (with Maïke Tahden and Anja Gieseler)*
7. From coupling to copula, with examples from modeling multisensory processes, *Winer Memorial Lectures, Purdue University, November 2014 (invited)*
8. Stochastic orders for comparing reaction time distributions, *European Mathematical Psychology Group Meeting, Tübingen, August 2014*
9. Malleability of the time window of integration: Relating reaction time to judgments of audiovisual temporal order, *15th International Multisensory Research Forum, Amsterdam, June 2014*
10. Recalibration of the multisensory temporal window of integration, *International Conference on Timing and Time Perception, Corfu, April 2014*
11. Universal Fechnerian Scaling: Theory and Applications, *Conference on New Mathematical Approaches in the Behavioral Sciences, UC Irvine, December 2013 (invited)*
12. Last orders (Stochastic orders of response time variability), *Festschrift for James T. Townsend, Indiana University, April 2013 (invited)*