

Publications by Björn W. Schuller

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Current h-index: **71** (source: Google Scholar)

Current citation count: **23 418** (source: Google Scholar)

Citations are only provided for papers with citation count ≥ 100 .

(IF): Journal Impact Factor according to Journal Citation Reports, Thomson Reuters.

(IF*): Conference Impact Factor according to <http://citescholar.org>.

Acceptance rates and impact factors of satellite workshops may be subsumed with the main conference.

A) BOOKS

Books Authored (6):

- 1) B. W. Schuller, *I Know What You're Thinking: The Making of Emotional Machines*. Princeton University Press, 2018. to appear
- 2) A. Balahur-Dobrescu, M. Taboada, and B. W. Schuller, *Computational Methods for Affect Detection from Natural Language*. Computational Social Sciences, Springer, 2017. to appear
- 3) B. Schuller, *Intelligent Audio Analysis*. Signals and Communication Technology, Springer, 2013. 350 pages
- 4) B. Schuller and A. Batliner, *Computational Paralinguistics: Emotion, Affect and Personality in Speech and Language Processing*. Wiley, November 2013. (> 100 citations)
- 5) K. Kroschel, G. Rigoll, and B. Schuller, *Statistische Informationstechnik*. Berlin/Heidelberg: Springer, 5th ed., 2011
- 6) B. Schuller, *Mensch, Maschine, Emotion – Erkennung aus sprachlicher und manueller Interaktion*. Saarbrücken: VDM Verlag Dr Müller, 2007. 239 pages

Books Edited (5):

- 7) H. N. Costin, B. W. Schuller, and A. M. Florea, eds., *Recent Advances in Intelligent Assistive Technologies: Paradigms and Applications*. Intelligent Systems Reference Library, Springer, 2018. to appear
- 8) S. Oviatt, B. Schuller, P. Cohen, D. Sonntag, G. Potamianos, and A. Krüger, eds., *The Handbook of Multimodal-Multisensor Interfaces Volume 1 – Foundations, User Modeling, and Common Modality Combinations*. ACM Books, Morgan & Claypool, 2017. 661 pages
- 9) S. Oviatt, B. Schuller, P. Cohen, D. Sonntag, G. Potamianos, and A. Krüger, eds., *The Handbook of Multimodal-Multisensor Interfaces Volume 2 – Signal Processing, Architectures, and Detection of Emotion and Cognition*. ACM Books, Morgan & Claypool, 2017
- 10) S. Oviatt, B. Schuller, P. Cohen, D. Sonntag, G. Potamianos, and A. Krüger, eds., *The Handbook of Multimodal-Multisensor Interfaces Volume 3 – Multimodal Language Processing, Software Tools, Commercial Applications and Emerging Directions*. ACM Books, Morgan & Claypool, 2017. to appear
- 11) S. D'Mello, A. Graesser, B. Schuller, and J.-C. Martin, eds., *Proceedings of the 4th International HUMAINE Association Conference on Affective Computing and Intelligent Interaction 2011, ACII 2011*, vol. 6974/6975, Part I / Part II of *Lecture Notes on Computer Science (LNCS)*, (Memphis, TN), HUMAINE Association, Springer, October 2011

Contributions to Books (46):

- 12) S. Amiriparian, M. Schmitt, S. Ottl, M. Gerczuk, and B. Schuller, "Deep Unsupervised Representation Learning for Audio-based Medical Applications," in *Deep Learners and Deep Learner Descriptors for Medical Applications* (L. Nanni, S. Brahmam, S. Ghidoni, R. Brattin, and L. Jain, eds.), Intelligent

Systems Reference Library (ISRL), Springer, 2019. 27 pages, invited contribution, to appear

- 13) V. Pandit, S. Amiriparian, M. Schmitt, K. Qian, J. Guo, S. Matsuoka, and B. Schuller, "Big Data Multimedia Mining: Feature Extraction facing Volume, Velocity, and Variety," in *Big Data Analytics for Large-Scale Multimedia Search* (S. Vrochidis, B. Huet, E. Y. Chang, and I. Kompatsiaris, eds.), ch. 3, pp. 61–83, Wiley, April 2019
- 14) P. Tzirakis, S. Zafeiriou, and B. Schuller, "Real-world automatic continuous affect recognition from audiovisual signals," in *Multi-modal Behavior Analysis in the Wild: Advances and Challenges* (X. Alameda-Pineda, E. Ricci, and N. Sebe, eds.), Computer Vision and Pattern Recognition, ch. 18, pp. 387–406, Elsevier, 2019
- 15) N. Cummins, J. Han, Z. Zhang, Z. Ren, and B. Schuller, "AI for Digital Health," in *Artificial Intelligence in Precision Health* (D. Barh, ed.), Elsevier, 2019. 10 pages, invited contribution, to appear
- 16) N. Cummins, F. Matcham, and B. Schuller, "Artificial Intelligence to aid the early detection of Mental Illness," in *Artificial Intelligence in Precision Health* (D. Barh, ed.), Elsevier, 2019. 10 pages, invited contribution, to appear
- 17) D. Schuller and B. Schuller, "The Challenge of Automatic Eating Behaviour Analysis and Tracking," in *Recent Advances in Intelligent Assistive Technologies: Paradigms and Applications* (H. N. Costin, B. W. Schuller, and A. M. Florea, eds.), Intelligent Systems Reference Library, Springer, 2019. 30 pages, to appear
- 18) S. Amiriparian, M. Schmitt, S. Hantke, V. Pandit, and B. Schuller, "Humans Inside: Cooperative Big Multimedia Data Mining," in *Innovations in Big Data Mining and Embedded Knowledge: Domestic and Social Context Challenges* (A. Esposito, A. M. Esposito, and L. C. Jain, eds.), Intelligent Systems Reference Library (ISRL), Springer, 2018. 25 pages, invited contribution, to appear
- 19) N. Cummins and B. Schuller, "Latest Advances in Computational Speech Analysis for Mobile Sensing," in *Mobile Sensing and Psychoinformatics* (H. Baumeister and C. Montag, eds.), Studies in Neuroscience, Psychology and Behavioral Economics, Berlin Heidelberg: Springer, 2018. 10 pages, invited contribution, to appear
- 20) B. Schuller, A. Elkins, and K. Scherer, "Computational Analysis of Vocal Expression of Affect: Trends and Challenges," in *Social Signal Processing* (J. Burgoon, N. Magnenat-Thalmann, M. Pantic, and A. Vinciarelli, eds.), ch. 6, pp. 56–68, Cambridge University Press, 2017
- 21) B. Schuller, "Multimodal User State & Trait Recognition: An Overview," in *Handbook of Multimodal-Multisensor Interfaces* (S. Oviatt, B. Schuller, P. Cohen, D. Sonntag, G. Potamianos, and A. Krüger, eds.), ACM Books, Morgan & Claypool, 2017. 30 pages, to appear
- 22) S. Bengio, L. Deng, L.-P. Morency, and B. Schuller, "Multi-disciplinary Challenge Topic: Perspectives on Predictive Power of Multimodal Deep Learning: Surprises and Future Directions," in *Handbook of Multimodal-Multisensor Interfaces* (S. Oviatt, B. Schuller, P. Cohen, D. Sonntag, G. Potamianos, and A. Krüger, eds.), ACM Books, Morgan & Claypool, 2017. 30 pages, to appear
- 23) H. Gunes and B. Schuller, "Automatic Analysis of Aesthetics: Human Beauty, Attractiveness, and Likability," in *Social Signal Processing* (J. Burgoon, N. Magnenat-Thalmann, M. Pantic, and A. Vinciarelli, eds.), ch. 14, pp. 183–201, Cambridge University Press, 2017
- 24) H. Gunes and B. Schuller, "Automatic Analysis of Social Emotions," in *Social Signal Processing* (J. Burgoon, N. Magnenat-Thalmann, M. Pantic, and A. Vinciarelli, eds.), ch. 16, pp. 213–224, Cambridge University Press, 2017
- 25) B. Schuller, "Acquisition of affect," in *Emotions and Personality in Personalized Services* (M. Tkalcic, B. De Carolis, M. de

- Gemmis, A. Odić, and A. Kosir, eds.), *Human-Computer Interaction Series*, pp. 57–80, Springer, 1st ed., 2016
- 26) F. Burkhardt, C. Pelachaud, B. Schuller, and E. Zovato, “EmotionML,” in *Multimodal Interaction with W3C Standards: Towards Natural User Interfaces to Everything* (D. Dahl, ed.), pp. 65–80, Berlin/Heidelberg: Springer, 2017
 - 27) G. Keren, A. E.-D. Mousa, O. Pietquin, S. Zafeiriou, and B. Schuller, “Deep Learning for Multisensorial and Multimodal Interaction,” in *Handbook of Multimodal-Multisensor Interfaces* (S. Oviatt, B. Schuller, P. Cohen, D. Sonntag, G. Potamianos, and A. Krüger, eds.), ACM Books, Morgan & Claypool, 2017. 30 pages, to appear
 - 28) M. Schmitt and B. Schuller, “Machine-based decoding of paralinguistic vocal features,” in *The Oxford Handbook of Voice Perception* (S. Frühholz and P. Belin, eds.), ch. 40, Oxford University Press, 2016. invited contribution, to appear
 - 29) B. Schuller, “Deep Learning our Everyday Emotions – A Short Overview,” in *Advances in Neural Networks: Computational and Theoretical Issues Emotional Expressions and Daily Cognitive Functions* (S. Bassis, A. Esposito, and F. C. Morabito, eds.), vol. 37 of *Smart Innovation Systems and Technologies*, pp. 339–346, Berlin Heidelberg: Springer, 2015. invited contribution
 - 30) B. Schuller and F. Weninger, “Human Affect Recognition – Audio-Based Methods,” in *Wiley Encyclopedia of Electrical and Electronics Engineering* (J. G. Webster, ed.), pp. 1–13, New York: John Wiley & Sons, 2015. invited contribution
 - 31) B. Schuller, “Multimodal Affect Databases -? Collection, Challenges & Chances,” in *Handbook of Affective Computing* (R. A. Calvo, S. D’Mello, J. Gratch, and A. Kappas, eds.), Oxford Library of Psychology, ch. 23, pp. 323–333, Oxford University Press, 2015. invited contribution
 - 32) B. Schuller, “Emotion Modeling via Speech Content and Prosody – in Computer Games and Elsewhere,” in *Emotion in Games – Theory and Practice* (G. Yannakakis and K. Karpouzis, eds.), vol. 4 of *Socio-Affective Computing*, ch. 5, pp. 85–102, Springer, 2015. invited contribution
 - 33) A. Batliner, S. Steidl, F. Eyben, and B. Schuller, “On Laughter and Speech Laugh, Based on Observations of Child-Robot Interaction,” in *Phonetics of Laughing* (J. Trouvain and N. Campbell, eds.), Saarbrücken, Germany: universaar – Saarland University Press, 2015. 29 pages, to appear
 - 34) R. Brückner and B. Schuller, “Being at Odds? – Deep and Hierarchical Neural Networks for Classification and Regression of Conflict in Speech,” in *Conflict and Multimodal Communication – Social research and machine intelligence* (F. D’Errico, I. Poggi, A. Vinciarelli, and L. Vincze, eds.), Computational Social Sciences, pp. 403–429, Berlin/Heidelberg: Springer, 2015. invited contribution
 - 35) G. Castellano, H. Gunes, C. Peters, and B. Schuller, “Multimodal Affect Detection for Naturalistic Human-Computer and Human-Robot Interactions,” in *Handbook of Affective Computing* (R. A. Calvo, S. D’Mello, J. Gratch, and A. Kappas, eds.), Oxford Library of Psychology, ch. 17, pp. 246–260, Oxford University Press, 2015. invited contribution
 - 36) E. Marchi, Y. Zhang, F. Eyben, F. Ringeval, and B. Schuller, “Autism and Speech, Language, and Emotion – a Survey,” in *Evaluating the Role of Speech Technology in Medical Case Management* (H. Patil and M. Kulshreshtha, eds.), Berlin: De Gruyter, 2015. invited contribution, to appear
 - 37) F. Weninger, M. Wöllmer, and B. Schuller, “Emotion Recognition in Naturalistic Speech and Language – A Survey,” in *Emotion Recognition: A Pattern Analysis Approach* (A. Konar and A. Chakraborty, eds.), ch. 10, pp. 237–267, Wiley, 1st ed., December 2015
 - 38) E. Marchi, F. Ringeval, and B. Schuller, “Voice-enabled assistive robots for handling autism spectrum conditions: an examination of the role of prosody,” in *Speech and Automata in Health Care (Speech Technology and Text Mining in Medicine and Healthcare)* (A. Neustein, ed.), pp. 207–236, Boston/Berlin/Munich: De Gruyter, 2014. invited contribution
 - 39) B. Schuller, “Prosody and Phonemes: On the Influence of Speaking Style,” in *Prosody and Iconicity* (S. Hancil and D. Hirst, eds.), ch. 13, pp. 233–250, Benjamins, May 2013
 - 40) B. Schuller and F. Weninger, “Ten Recent Trends in Computational Paralinguistics,” in *4th COST 2102 International Training School on Cognitive Behavioural Systems* (A. Esposito, A. Vinciarelli, R. Hoffmann, and V. C. Müller, eds.), vol. 7403/2012 of *Lecture Notes on Computer Science (LNCS)* 7403, pp. 35–49, Berlin Heidelberg: Springer, 2012
 - 41) R. Rotili, E. Principi, M. Wöllmer, S. Squartini, and B. Schuller, “Conversational Speech Recognition In Non-Stationary Reverberated Environments,” in *4th COST 2102 International Training School on Cognitive Behavioural Systems* (A. Esposito, A. Vinciarelli, R. Hoffmann, and V. C. Müller, eds.), vol. 7403/2012 of *Lecture Notes on Computer Science (LNCS)*, pp. 50–59, Berlin Heidelberg: Springer, 2012
 - 42) R. Rotili, E. Principi, S. Squartini, and B. Schuller, “Real-Time Speech Recognition in a Multi-Talker Reverberated Acoustic Scenario,” in *Advanced Intelligent Computing Theories and Applications. With Aspects of Artificial Intelligence. Proc. Seventh International Conference on Intelligent Computing (ICIC 2011)*, vol. 6839 of *Lecture Notes on Computer Science (LNCS)*, pp. 379–386, Springer, 2012
 - 43) B. Schuller, “Voice and Speech Analysis in Search of States and Traits,” in *Computer Analysis of Human Behavior* (A. A. Salah and T. Gevers, eds.), Advances in Pattern Recognition, ch. 9, pp. 227–253, Springer, 2011
 - 44) B. Schuller and T. Knaup, “Learning and Knowledge-based Sentiment Analysis in Movie Review Key Excerpts,” in *Toward Autonomous, Adaptive, and Context-Aware Multimodal Interfaces: Theoretical and Practical Issues: Third COST 2102 International Training School, Caserta, Italy, March 15-19, 2010, Revised Selected Papers* (A. Esposito, A. M. Esposito, R. Martone, V. Müller, and G. Scarpetta, eds.), vol. 6456/2010 of *Lecture Notes on Computer Science (LNCS)*, pp. 448–472, Heidelberg: Springer, 1st ed., 2011
 - 45) B. Schuller, M. Wöllmer, F. Eyben, and G. Rigoll, “Retrieval of Paralinguistic Information in Broadcasts,” in *Multimedia Information Extraction: Advances in video, audio, and imagery extraction for search, data mining, surveillance, and authoring* (M. T. Maybury, ed.), ch. 17, pp. 273–288, Wiley, IEEE Computer Society Press, 2011
 - 46) D. Arsić and B. Schuller, “Real Time Person Tracking and Behavior Interpretation in Multi Camera Scenarios Applying Homography and Coupled HMMs,” in *Analysis of Verbal and Nonverbal Communication and Enactment: The Processing Issues, COST 2102 International Conference, Budapest, Hungary, September 7-10, 2010, Revised Selected Papers* (A. Esposito, A. Vinciarelli, K. Vicsi, C. Pelachaud, and A. Nijholt, eds.), vol. 6800/2011 of *Lecture Notes on Computer Science (LNCS)*, pp. 1–18, Heidelberg: Springer, 2011
 - 47) B. Schuller, F. Dibiasi, F. Eyben, and G. Rigoll, “Music Thumbnailing Incorporating Harmony- and Rhythm Structure,” in *Adaptive Multimedia Retrieval: 6th International Workshop, AMR 2008, Berlin, Germany, June 26-27, 2008. Revised Selected Papers* (M. Detyniecki, U. Leiner, and A. Nürnberger, eds.), vol. 5811/2010 of *Lecture Notes in Computer Science (LNCS)*, pp. 78–88, Berlin/Heidelberg: Springer, 2010
 - 48) A. Batliner, B. Schuller, D. Seppi, S. Steidl, L. Devillers, L. Vidrascu, T. Vogt, V. Aharonson, and N. Amir, “The Automatic Recognition of Emotions in Speech,” in *Emotion-Oriented Systems: The HUMAINE Handbook* (R. Cowie, P. Petta, and C. Pelachaud, eds.), Cognitive Technologies, pp. 71–99, Springer, 1st ed., 2010
 - 49) M. Wöllmer, F. Eyben, A. Graves, B. Schuller, and G. Rigoll, “Improving Keyword Spotting with a Tandem BLSTM-DBN Architecture,” in *Advances in Non-Linear Speech Processing: International Conference on Nonlinear Speech Processing, NO-*

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- 50) B. Schuller, M. Wöllmer, F. Eyben, and G. Rigoll, “Spectral or Voice Quality? Feature Type Relevance for the Discrimination of Emotion Pairs,” in *The Role of Prosody in Affective Speech* (S. Hancil, ed.), vol. 97 of *Linguistic Insights, Studies in Language and Communication*, pp. 285–307, Peter Lang Publishing Group, 2009
 - 51) B. Schuller, F. Eyben, and G. Rigoll, “Static and Dynamic Modelling for the Recognition of Non-Verbal Vocalisations in Conversational Speech,” in *Perception in Multimodal Dialogue Systems: 4th IEEE Tutorial and Research Workshop on Perception and Interactive Technologies for Speech-Based Systems, PIT 2008, Kloster Irsee, Germany, June 16-18, 2008, Proceedings* (E. André, L. Dybkjaer, H. Neumann, R. Pieraccini, and M. Weber, eds.), vol. 5078/2008 of *Lecture Notes on Computer Science (LNCS)*, pp. 99–110, Berlin/Heidelberg: Springer, 2008
 - 52) B. Schuller, M. Wöllmer, T. Moosmayr, G. Ruske, and G. Rigoll, “Switching Linear Dynamic Models for Noise Robust In-Car Speech Recognition,” in *Pattern Recognition: 30th DAGM Symposium Munich, Germany, June 10-13, 2008 Proceedings* (G. Rigoll, ed.), vol. 5096 of *Lecture Notes on Computer Science (LNCS)*, pp. 244–253, Berlin/Heidelberg: Springer, 2008. (acceptance rate: 39 %, IF* 1.13 (2010))
 - 53) B. Vlasenko, B. Schuller, A. Wendemuth, and G. Rigoll, “On the Influence of Phonetic Content Variation for Acoustic Emotion Recognition,” in *Perception in Multimodal Dialogue Systems: 4th IEEE Tutorial and Research Workshop on Perception and Interactive Technologies for Speech-Based Systems, PIT 2008, Kloster Irsee, Germany, June 16-18, 2008, Proceedings* (E. André, L. Dybkjaer, H. Neumann, R. Pieraccini, and M. Weber, eds.), vol. 5078/2008 of *Lecture Notes on Computer Science (LNCS)*, pp. 217–220, Berlin/Heidelberg: Springer, 2008
 - 54) M. Grimm, K. Kroschel, H. Harris, C. Nass, B. Schuller, G. Rigoll, and T. Moosmayr, “On the Necessity and Feasibility of Detecting a Driver’s Emotional State While Driving,” in *Affective Computing and Intelligent Interaction: Second International Conference, ACII 2007, Lisbon, Portugal, September 12-14, 2007, Proceedings* (A. Paiva, R. W. Picard, and R. Prada, eds.), vol. 4738/2007 of *Lecture Notes on Computer Science (LNCS)*, pp. 126–138, Berlin/Heidelberg: Springer, 2007
 - 55) B. Vlasenko, B. Schuller, A. Wendemuth, and G. Rigoll, “Frame vs. Turn-Level: Emotion Recognition from Speech Considering Static and Dynamic Processing,” in *Affective Computing and Intelligent Interaction: Second International Conference, ACII 2007, Lisbon, Portugal, September 12-14, 2007, Proceedings* (A. Paiva, R. W. Picard, and R. Prada, eds.), vol. 4738/2007 of *Lecture Notes on Computer Science (LNCS)*, pp. 139–147, Berlin/Heidelberg: Springer, 2007
 - 56) M. Schröder, L. Devillers, K. Karpouzis, J.-C. Martin, C. Pelachaud, C. Peter, H. Pirker, B. Schuller, J. Tao, and I. Wilson, “What should a generic emotion markup language be able to represent?,” in *Affective Computing and Intelligent Interaction: Second International Conference, ACII 2007, Lisbon, Portugal, September 12-14, 2007, Proceedings* (A. Paiva, R. W. Picard, and R. Prada, eds.), vol. 4738/2007 of *Lecture Notes on Computer Science (LNCS)*, pp. 440–451, Berlin/Heidelberg: Springer, 2007
 - 57) B. Schuller, M. Ablameier, R. Müller, S. Reifinger, T. Poitschke, and G. Rigoll, “Speech Communication and Multimodal Interfaces,” in *Advanced Man Machine Interaction* (K.-F. Kraiss, ed.), Signals and Communication Technology, ch. 4, pp. 141–190, Berlin/Heidelberg: Springer, 2006
- B) REFEREED JOURNAL PAPERS (144)
- 58) B. Schuller, “Micro-Expressions – A Chance for Computers to Beat Humans at Detecting Hidden Emotions?,” *IEEE Computer Magazine*, vol. 52, pp. 4–5, February 2019. (IF: 1.940, 5-year IF: 2.113 (2017))
 - 59) S. Amiriparian, N. Cummins, M. Gerczuk, S. Pugachevskiy, S. Ottl, and B. Schuller, ““Are You Playing a Shooter Again?!” Deep Representation Learning for Audio-based Video Game Genre Recognition,” *IEEE Transactions on Games*, vol. 11, 2019. 11 pages, to appear
 - 60) J. Deng, B. Schuller, F. Eyben, D. Schuller, Z. Zhang, H. Francois, and E. Oh, “Exploiting time-frequency patterns with LSTM RNNs for low-bitrate audio restoration,” *Neural Computing and Applications, Special Issue on Deep Learning for Music and Audio*, vol. 31, 2019. 13 pages, to appear (IF: 4.213 (2017))
 - 61) K. Grabowski, A. Rynkiewicz, A. Lassalle, S. Baron-Cohen, B. Schuller, N. Cummins, A. E. Baird, J. Podgórska-Bednarz, A. Pieniazek, and I. Lucka, “Emotional expression in psychiatric conditions – new technology for clinicians,” *Psychiatry and Clinical Neurosciences*, vol. 73, no. 2, pp. 50–62, 2019. (IF: 3.199 (2017))
 - 62) D. Kollias, P. Tzirakis, M. A. Nicolaou, A. Papaioannou, G. Zhao, B. Schuller, I. Kotsia, and S. Zafeiriou, “Deep Affect Prediction in-the-Wild: Aff-Wild Database and Challenge, Deep Architectures, and Beyond,” *International Journal of Computer Vision*, vol. 127, 2019. 23 pages, to appear (IF: 11.541 (2017))
 - 63) E. Parada-Cabaleiro, G. Costantini, A. Batliner, M. Schmitt, and B. W. Schuller, “DEMoS – An Italian Emotional Speech Corpus – Elicitation methods, machine learning, and perception,” *Language Resources and Evaluation*, vol. 53, 2019. 39 pages, to appear (IF: 0.656 (2017))
 - 64) F. Pokorný, K. Bartl-Pokorný, D. Marschik, P. Marschik, D. Schuller, and B. Schuller, “Efficient Preverbal Data Collection and Representation of Typical and Atypical Development,” *Journal of Nonverbal Behavior, Special Issue on Nonverbal Communication and Early Development*, 2019. to appear (IF: 1.595 (2017))
 - 65) K. Qian, M. Schmitt, C. Janott, Z. Zhang, C. Heiser, W. Hohenhorst, M. Herzog, W. Hemmert, and B. Schuller, “A Bag of Wavelet Features for Snore Sound Classification,” *Annals of Biomedical Engineering*, 2019. 16 pages, to appear (IF: 3.405 (2017))
 - 66) D. Schuller and B. Schuller, “A Review on Five Recent and Near-Future Developments in Computational Processing of Emotion in the Human Voice,” *Emotion Review, Special Issue on Emotions and the Voice*, vol. 11, 2019. 10 pages, invited contribution, to appear (IF: 3.780, 5-year IF: 5.129 (2017))
 - 67) X. Xu, J. Deng, E. Coutinho, C. Wu, L. Zhao, and B. Schuller, “Connecting Subspace Learning and Extreme Learning Machine in Speech Emotion Recognition,” *IEEE Transactions on Multimedia*, vol. 21, pp. 795–808, 3 2019. (IF: 3.509, 5-year IF: 4.103 (2016))
 - 68) Y. Zhang, F. Wenginger, A. Michi, J. Wagner, E. André, and B. Schuller, “A Generic Human-Machine Annotation Framework Using Dynamic Cooperative Learning with a Deep Learning-based Confidence Measure,” *IEEE Transactions on Cybernetics*, 2019. 11 pages, to appear (IF: 8.803 (2017))
 - 69) Z. Zhang, J. Han, K. Qian, C. Janott, Y. Guo, and B. Schuller, “Snore-GANs: Improving Automatic Snore Sound Classification with Synthesized Data,” *IEEE Journal of Biomedical and Health Informatics*, vol. 23, 2019. 11 pages, to appear (IF: 3.850 (2017))
 - 70) B. Schuller, Y. Zhang, and F. Wenginger, “Three Recent Trends in Paralinguistics on the Way to Omniscient Machine Intelligence,” *Journal on Multimodal User Interfaces, Special Issue on Speech Communication*, vol. 12, pp. 273–283, 2018. (IF: 1.140, 5-year IF: 0.872 (2017))
 - 71) B. Schuller, F. Wenginger, Y. Zhang, F. Ringeval, A. Batliner, S. Steidl, F. Eyben, E. Marchi, A. Vinciarelli, K. Scherer, M. Chetouani, and M. Mortillaro, “Affective and Behavioural Computing: Lessons Learnt from the First Computational

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- 72) B. Schuller, “Speech Emotion Recognition: Two Decades in a Nutshell, Benchmarks, and Ongoing Trends,” *Communications of the ACM*, vol. 61, pp. 90–99, May 2018. Feature Article (IF: 4.027, 5-year IF: 6.469 (2016))
- 73) B. Schuller, “What Affective Computing Reveals about Autistic Children’s Facial Expressions of Joy or Fear,” *IEEE Computer Magazine*, vol. 51, pp. 40–41, June 2018. (IF: 1.940, 5-year IF: 2.113 (2017))
- 74) A. Baird, S. H. Jorgensen, E. Parada-Cabaleiro, S. Hantke, N. Cummins, and B. Schuller, “Listener Perception of Vocal Traits in Synthesized Voices: Age, Gender, and Human-Likeness,” *Journal of the Audio Engineering Society, Special Issue on Augmented and Participatory Sound and Music Interaction using Semantic Audio*, vol. 66, 2018. 8 pages, to appear (IF: 0.707, 5-year IF: 0.832 (2016))
- 75) E. Coutinho, K. Gentsch, J. van Peer, K. R. Scherer, and B. Schuller, “Evidence of Emotion-Antecedent Appraisal Checks in Electroencephalography and Facial Electromyography,” *PLoS ONE*, vol. 13, pp. 1–19, January 2018. (IF: 2.806 (2016))
- 76) N. Cummins, B. W. Schuller, and A. Baird, “Speech analysis for health: Current state-of-the-art and the increasing impact of deep learning,” *Methods, Special Issue on on Translational data analytics and health informatics*, 2018. 25 pages, to appear (IF: 3.998, 5-year IF: 3.936 (2017))
- 77) J. Deng, X. Xu, Z. Zhang, S. Frühholz, and B. Schuller, “Semi-Supervised Autoencoders for Speech Emotion Recognition,” *IEEE/ACM Transactions on Audio, Speech and Language Processing*, vol. 26, no. 1, pp. 31–43, 2018. (IF: 2.950, 5-year IF: 3.253 (2017))
- 78) M. Freitag, S. Amiriparian, S. Pugachevskiy, N. Cummins, and B. Schuller, “auDeep: Unsupervised Learning of Representations from Audio with Deep Recurrent Neural Networks,” *Journal of Machine Learning Research*, vol. 18, pp. 1–5, April 2018. (IF: 5.000, 5-year IF: 7.649 (2016))
- 79) J. Han, Z. Zhang, N. Cummins, and B. Schuller, “Adversarial Training in Affective Computing and Sentiment Analysis: Recent Advances and Prospectives,” *IEEE Computational Intelligence Magazine, Special Issue on Computational Intelligence for Affective Computing and Sentiment Analysis*, 2018. 13 pages, to appear (IF: 6.611, 5-year IF: 5.000 (2017))
- 80) J. Han, Z. Zhang, G. Keren, and B. Schuller, “Emotion Recognition in Speech with Latent Discriminative Representations Learning,” *Acta Acustica united with Acustica*, vol. 104, pp. 737–740, September 2018. (IF: 1.119, 5-year IF: 0.971 (2016))
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- 372) F. Wenginger, F. Ringeval, E. Marchi, and B. Schuller, “Discriminatively trained recurrent neural networks for continuous dimensional emotion recognition from audio,” in *Proceedings of the 25th International Joint Conference on Artificial Intelligence, IJCAI 2016*, (New York City, NY), pp. 2196–2202, IJCAI/AAAI, July 2016. (acceptance rate: 25 %)
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- 732) L. Stappen, N. Cummins, E.-M. Messner, A. Mallol-Ragolta, H. Baumeister, and B. Schuller, “Attention-based Neural Networks for the Detection of Objective Linguistic Markers in Depressive Spoken and Written Language,” in *Proceedings 16th International Pragmatics Conference (IPrA)*, (Hong Kong, P.R. China), International Pragmatics Association (IPrA), IPrA, June 2019. 1 page, to appear
- 733) B. Schuller, “Emotion Sensing at Your Wrist,” in *2nd Workshop on emotion awareness for pervasive computing with mobile and wearable devices (EmotionAware 2018) in conjunction with the 2018 IEEE International Conference on Pervasive Computing and Communications (PerCom 2018)*, (Athens, Greece), IEEE, IEEE, March 2018. 1 page, to appear
- 734) B. Schuller, “State of Mind Sensing from Speech: State of Matters and What Matters,” in *Speech, Music and Mind 2018 (SMM18): Detecting and Influencing Mental States with Audio, satellite workshop of Interspeech 2018*, (Hyderabad, India), ISCA, ISCA, September 2018. 1 page
- 735) A. Baird, S. Amiriparian, A. Rynkiewicz, and B. Schuller, “Echolalic Autism Spectrum Condition Vocalisations: Brute-Force and Deep Spectrum Features,” in *Proceedings International Paediatric Conference (IPC 2018)*, (Rzeszów, Poland), Polish Society of Social Medicine and Public Health, May 2018. 2 pages

- 736) Z. Zhang, A. Warlaumont, B. Schuller, G. Yetish, C. Scaff, H. Colleran, J. Stieglitz, and A. Cristia, "Developing computational measures of vocal maturity from daylong recordings," in *16èmes Rencontres du Réseau Français de Phonologie (RFP 2018)*, (Paris, France), RFP, RFP, June 2018. 1 page
- 737) B. Schuller, "Mental health monitoring in the pocket as a life changer? The AI view," in *Proceedings 9th Scientific Meeting of the International Society for Research on Internet Interventions, ISRII 2017*, (Berlin, Germany), Society for Research on Internet Interventions (SRII), Elsevier, October 2017. 1 page
- 738) A. Rynkiewicz, K. Grabowski, A. Lassalle, S. Baron-Cohen, B. Schuller, N. Cummins, A. Baird, N. Hadjikhani, J. Podgrska-Bednarz, A. Pieniek, I. ucka, A. Mazur, and J. Tabarkiewicz, "Humanoid Robots and Modern Technology in ADOS-2 and BOSCC to Support the Clinical Evaluation and Therapy of Patients with Autism Spectrum Condition (ASC) / Roboty humanoidalne oraz nowe technologie w ADOS-2 i BOSCC, wspierajce diagnostyk kliniczn i terapii osb ze stanami ze spektrum autyzmu," in *Proceedings XXIX Oglnopolska Konferencja Sekcji Naukowej Psychiatrii Dzieci i Modziey Polskiego Towarzystwa Psychiatrycznego*, (Katowice, Poland), Polskie Towarzystwo Psychiatryczne, PTP, November 2017. 3 pages
- 739) N. Cummins, S. Hantke, S. Schnieder, J. Krajewski, and B. Schuller, "Classifying the Context and Emotion of Dog Barks: A Comparison of Acoustic Feature Representations," in *Proceedings Pre-Conference on Affective Computing 2017 SAS Annual Conference*, (Boston, MA), pp. 14–15, Society for Affective Science (SAS), April 2017
- 740) J. Guo, K. Qian, B. Schuller, and S. Matsuoka, "GPU Processing Accelerates Training Autoencoders for Bird Sounds Data," in *Proceedings 2017 GPU Technology Conference (GTC)*, (San Jose, CA), NVIDIA, May 2017. 1 page
- 741) F. B. Pokorny, B. W. Schuller, K. D. Bartl-Pokorny, D. Zhang, C. Einspieler, and P. B. Marschik, "In a bad mood? Automatic audio-based recognition of infant fussing and crying in videotaped vocalisations," in *Proceedings 2017 13th International Infant Cry Workshop*, (Castel Noarna-Rovereto, Italy), July 2017. 1 page
- 742) Y. Zhang and B. Schuller, "Towards Human-like Holistic Machine Perception of Affective Social Behaviour," in *Proceedings 12th Workshop on Women in Machine Learning (WiML 2017), satellite event of NIPS 2017*, (Long Beach, CA), NIPS, NIPS, December 2017. 1 page
- 743) B. Schuller, "Engage to Empower: Emotionally Intelligent Computer Games & Robots for Autistic Children," in *Proceedings "The world innovations combining medicine, engineering and technology in autism diagnosis and therapy"* (A. Rynkiewicz and K. Grabowski, eds.), (Rzeszów, Poland), pp. 65–67, SOLIS RADIUS, September 2016
- 744) B. Schuller, "Zaangazowanie aby wzmacniac kompetencje: emocjonalnie inteligentne roboty i gry komputerow dla dzieci z autyzmem," in *Proceedings "Swiatowe innowacje laczące medycyne, inzynierie oraz technologie w diagnozowaniu i terapii autyzmu"* (A. Rynkiewicz and K. Grabowski, eds.), (Rzeszów, Poland), pp. 62–64, SOLIS RADIUS, September 2016
- 745) F. B. Pokorny, B. W. Schuller, K. D. Bartl-Pokorny, C. Einspieler, and P. B. Marschik, "Contributing to the early identification of Rett syndrome: Automated analysis of vocalisations from the pre-regression period," in *Proceedings Symposium of the Austrian Physiological Society 2016*, (Graz, Austria), ÖPG, ÖPG, October 2016. 1 page, Best Poster award 3rd place
- 746) F. B. Pokorny, B. W. Schuller, R. Peharz, F. Pernkopf, K. D. Bartl-Pokorny, C. Einspieler, and P. B. Marschik, "Contributing to the early identification of neurodevelopmental disorders: The retrospective analysis of pre-linguistic vocalisations in home video material," in *Proceedings IX Congreso Internacional y XIV Nacional de Psicología Clínica*, (Santander, Spain), November 2016. 1 page
- 747) F. B. Pokorny, B. W. Schuller, R. Peharz, F. Pernkopf, K. D. Bartl-Pokorny, C. Einspieler, and P. B. Marschik, "Retrospektive Analyse frühkindlicher Lautäußerungen in „Home-Videos“: Ein signalanalytischer Ansatz zur Früherkennung von Entwicklungsstörungen," in *Proceedings 42. Österreichische Linguistiktagung, ÖLT*, (Graz, Austria), November 2016. 1 page
- 748) O. Rudovic, V. Evers, M. Pantic, B. Schuller, and S. Petrović, "DE-ENIGMA Robots: Playfully Empowering Children with Autism," in *Proceedings XI Autism-Europe International Congress*, (Edinburgh, Scotland), Autism Europe, The National Autistic Society, September 2016. 1 page
- 749) O. Rudovic, J. Lee, B. Schuller, and R. Picard, "Automated Measurement of Engagement of Children with Autism Spectrum Conditions during Human-Robot Interaction (HRI)," in *Proceedings XI Autism-Europe International Congress*, (Edinburgh, Scotland), Autism Europe, The National Autistic Society, September 2016. 1 page
- 750) B. Schuller, "Modelling User Affect and Sentiment in Intelligent User Interfaces: a Tutorial Overview," in *Proceedings of the 20th ACM International Conference on Intelligent User Interfaces, IUI 2015*, (Atlanta, GA), pp. 443–446, ACM, ACM, March 2015
- 751) F. B. Pokorny, C. Einspieler, D. Zhang, A. Kimmerle, K. D. Bartl-Pokorny, B. W. Schuller, and S. Bölte, "The Voice of Autism: An Acoustic Analysis of Early Vocalisations," in *COST ESSEA Conference 2014 Book of Abstracts*, (Toulouse, France), September 2014. 1 page
- 752) B. Schuller, "Interfaces Seeing and Hearing the User," in *Proceedings The Rank Prize Funds Symposium on Natural User Interfaces, Augmented Reality and Beyond: Challenges at the Intersection of HCI and Computer Vision*, (Grasmere, UK), The Rank Prize Funds, The Rank Prize Funds, November 2013. invited contribution, 1 page
- 753) G. Ferroni, E. Marchi, F. Eyben, S. Squartini, and B. Schuller, "Onset Detection Exploiting Wavelet Transform with Bidirectional Long Short-Term Memory Neural Networks," in *Proceedings Annual Meeting of the MIREX 2013 community as part of the 14th International Conference on Music Information Retrieval*, (Curitiba, Brazil), ISMIR, ISMIR, November 2013. 3 pages
- 754) G. Ferroni, E. Marchi, F. Eyben, L. Gabrielli, S. Squartini, and B. Schuller, "Onset Detection Exploiting Adaptive Linear Prediction Filtering in DWT Domain with Bidirectional Long Short-Term Memory Neural Networks," in *Proceedings Annual Meeting of the MIREX 2013 community as part of the 14th International Conference on Music Information Retrieval*, (Curitiba, Brazil), ISMIR, ISMIR, November 2013. 4 pages
- 755) H. Gunes and B. Schuller, "Dimensional and Continuous Analysis of Emotions for Multimedia Applications: a Tutorial Overview," in *Proceedings of the 20th ACM International Conference on Multimedia, MM 2012*, (Nara, Japan), ACM, ACM, October 2012. 2 pages
- 756) M. Schröder, S. Pammi, H. Gunes, M. Pantic, M. Valstar, R. Cowie, G. McKeown, D. Heylen, M. ter Maat, F. Eyben, B. Schuller, M. Wöllmer, E. Bevacqua, C. Pelachaud, and E. de Sevin, "Come and Have an Emotional Workout with Sensitive Artificial Listeners!," in *Proceedings 9th IEEE International Conference on Automatic Face & Gesture Recognition and Workshops, FG 2011*, (Santa Barbara, CA), pp. 646–646, IEEE, IEEE, March 2011
- 757) F. Eyben and B. Schuller, "Music Classification with the Munich openSMILE Toolkit," in *Proceedings Annual Meeting of the MIREX 2010 community as part of the 11th International Conference on Music Information Retrieval*, (Utrecht, Netherlands), ISMIR, ISMIR, August 2010. 2 pages (acceptance rate: 61 %)
- 758) F. Eyben and B. Schuller, "Tempo Estimation from Tatum and Meter Vectors," in *Proceedings Annual Meeting of the MIREX 2010 community as part of the 11th International Conference on Music Information Retrieval*, (Utrecht, Netherlands), ISMIR, ISMIR, August 2010. 1 page (acceptance rate: 61 %)

- 759) S. Böck, F. Eyben, and B. Schuller, “Beat Detection with Bidirectional Long Short-Term Memory Neural Networks,” in *Proceedings Annual Meeting of the MIREX 2010 community as part of the 11th International Conference on Music Information Retrieval*, (Utrecht, Netherlands), ISMIR, ISMIR, August 2010. 2 pages (acceptance rate: 61 %)
- 760) S. Böck, F. Eyben, and B. Schuller, “Onset Detection with Bidirectional Long Short-Term Memory Neural Networks,” in *Proceedings Annual Meeting of the MIREX 2010 community as part of the 11th International Conference on Music Information Retrieval*, (Utrecht, Netherlands), ISMIR, ISMIR, August 2010. 2 pages (acceptance rate: 61 %)
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- Invited Papers (30):*
- 762) S. Amiriparian, S. Julka, N. Cummins, and B. Schuller, “Deep Convolutional Recurrent Neural Networks for Rare Sound Event Detection,” in *Proceedings 44. Jahrestagung für Akustik, DAGA 2018*, (Munich, Germany), DEGA, DEGA, March 2018. 4 pages, invited contribution, Structured Session Deep Learning for Audio
- 763) M. Schmitt and B. Schuller, “Deep Recurrent Neural Networks for Emotion Recognition in Speech,” in *Proceedings 44. Jahrestagung für Akustik, DAGA 2018*, (Munich, Germany), DEGA, DEGA, March 2018. 4 pages, invited contribution, Structured Session Deep Learning for Audio
- 764) B. Schuller, M. Wöllmer, F. Eyben, G. Rigoll, and D. Arsić, “Semantic Speech Tagging: Towards Combined Analysis of Speaker Traits,” in *Proceedings AES 42nd International Conference* (K. Brandenburg and M. Sandler, eds.), (Ilmenau, Germany), pp. 89–97, AES, Audio Engineering Society, July 2011. invited contribution
- 765) B. Schuller, S. Can, and H. Feussner, “Robust Key-Word Spotting in Field Noise for Open-Microphone Surgeon-Robot Interaction,” in *Proceedings 5th Russian-Bavarian Conference on Bio-Medical Engineering, RBC-BME 2009*, (Munich, Germany), pp. 121–123, July 2009. invited contribution
- 766) B. Schuller, A. Lehmann, F. Weninger, F. Eyben, and G. Rigoll, “Blind Enhancement of the Rhythmic and Harmonic Sections by NMF: Does it help?,” in *Proceedings International Conference on Acoustics including the 35th German Annual Conference on Acoustics, NAG/DAGA 2009*, (Rotterdam, The Netherlands), pp. 361–364, Acoustical Society of the Netherlands, DEGA, DEGA, March 2009. invited contribution
- 767) B. Schuller, “Speaker, Noise, and Acoustic Space Adaptation for Emotion Recognition in the Automotive Environment,” in *Proceedings 8th ITG Conference on Speech Communication*, vol. 211 of *ITG-Fachbericht*, (Aachen, Germany), ITG, VDE-Verlag, October 2008. invited contribution, 4 pages
- 768) B. Schuller, M. Wöllmer, T. Moosmayr, and G. Rigoll, “Robust Spelling and Digit Recognition in the Car: Switching Models and Their Like,” in *Proceedings 34. Jahrestagung für Akustik, DAGA 2008*, (Dresden, Germany), pp. 847–848, DEGA, DEGA, March 2008. invited contribution, Structured Session Sprachakustik im Kraftfahrzeug
- 769) B. Schuller, F. Eyben, and G. Rigoll, “Beat-Synchronous Data-driven Automatic Chord Labeling,” in *Proceedings 34. Jahrestagung für Akustik, DAGA 2008*, (Dresden, Germany), pp. 555–556, DEGA, DEGA, March 2008. invited contribution, Structured Session Music Processing
- 770) B. Schuller, S. Can, C. Scheuermann, H. Feussner, and G. Rigoll, “Robust Speech Recognition for Human-Robot Interaction in Minimal Invasive Surgery,” in *Proceedings 4th Russian-Bavarian Conference on Bio-Medical Engineering, RBC-BME 2008*, (Zelenograd, Russia), pp. 197–201, July 2008. invited contribution
- 771) B. Schuller, R. Müller, B. Hörnler, A. Höthker, H. Konosu, and G. Rigoll, “Audiovisual Recognition of Spontaneous Interest within Conversations,” in *Proceedings 9th ACM International Conference on Multimodal Interfaces, ICMI 2007*, (Nagoya, Japan), pp. 30–37, ACM, ACM, November 2007. invited contribution, Special Session on Multimodal Analysis of Human Spontaneous Behaviour (acceptance rate: 56 %, IF* 1.77 (2010))
- 772) B. Schuller, G. Rigoll, M. Grimm, K. Kroschel, T. Moosmayr, and G. Ruske, “Effects of In-Car Noise-Conditions on the Recognition of Emotion within Speech,” in *Proceedings 33. Jahrestagung für Akustik, DAGA 2007*, (Stuttgart, Germany), pp. 305–306, DEGA, DEGA, March 2007. invited contribution, Structured Session Sprachakustik im Kraftfahrzeug
- 773) B. Schuller, J. Stadermann, and G. Rigoll, “Affect-Robust Speech Recognition by Dynamic Emotional Adaptation,” in *Proceedings 3rd International Conference on Speech Prosody, SP 2006*, (Dresden, Germany), ISCA, ISCA, May 2006. invited contribution, Special Session Prosody in Automatic Speech Recognition, 4 pages
- 774) B. Schuller, M. Lang, and G. Rigoll, “Recognition of Spontaneous Emotions by Speech within Automotive Environment,” in *Proceedings 32. Jahrestagung für Akustik, DAGA 2006*, (Braunschweig, Germany), pp. 57–58, DEGA, DEGA, March 2006. invited contribution, Structured Session Sprachakustik im Kraftfahrzeug
- 775) B. Schuller and G. Rigoll, “Self-learning Acoustic Feature Generation and Selection for the Discrimination of Musical Signals,” in *Proceedings 32. Jahrestagung für Akustik, DAGA 2006*, (Braunschweig, Germany), pp. 285–286, DEGA, DEGA, March 2006. invited contribution, Structured Session Music Processing
- 776) B. Schuller, R. Müller, M. Lang, and G. Rigoll, “Speaker Independent Emotion Recognition by Early Fusion of Acoustic and Linguistic Features within Ensembles,” in *Proceedings Interspeech 2005, Eurospeech*, (Lisbon, Portugal), pp. 805–809, ISCA, ISCA, September 2005. invited contribution, Special Session Emotional Speech Analysis and Synthesis: Towards a Multimodal Approach (acceptance rate: 61 %, IF* 1.05 (2010), > 100 citations)
- 777) B. Schuller, M. Lang, and G. Rigoll, “Robust Acoustic Speech Emotion Recognition by Ensembles of Classifiers,” in *Proceedings 31. Jahrestagung für Akustik, DAGA 2005*, (Munich, Germany), pp. 329–330, DEGA, DEGA, March 2005. invited contribution, Structured Session Automatische Spracherkennung in gestörter Umgebung
- 778) B. Schuller, G. Rigoll, and M. Lang, “Matching Monophonic Audio Clips to Polyphonic Recordings,” in *Proceedings 31. Jahrestagung für Akustik, DAGA 2005*, (Munich, Germany), pp. 299–300, DEGA, DEGA, March 2005. invited contribution, Structured Session Music Processing
- 779) Z. Zhang, F. Weninger, and B. Schuller, “Towards Automatic Intoxication Detection from Speech in Real-Life Acoustic Environments,” in *Proceedings of Speech Communication; 10. ITG Symposium* (T. Fingscheidt and W. Kellermann, eds.), (Braunschweig, Germany), pp. 1–4, ITG, IEEE, September 2012. invited contribution
- 780) C. Joder and B. Schuller, “Exploring Nonnegative Matrix Factorisation for Audio Classification: Application to Speaker Recognition,” in *Proceedings of Speech Communication; 10. ITG Symposium* (T. Fingscheidt and W. Kellermann, eds.), (Braunschweig, Germany), pp. 1–4, ITG, IEEE, September 2012. invited contribution
- 781) J. Deng, W. Han, and B. Schuller, “Confidence Measures for Speech Emotion Recognition: a Start,” in *Proceedings of Speech Communication; 10. ITG Symposium* (T. Fingscheidt and W. Kellermann, eds.), (Braunschweig, Germany), pp. 1–4,

- ITG, IEEE, September 2012. invited contribution
- 782) M. Wöllmer, M. Kaiser, F. Eyben, F. Weninger, B. Schuller, and G. Rigoll, “Fully Automatic Audiovisual Emotion Recognition – Voice, Words, and the Face,” in *Proceedings of Speech Communication; 10. ITG Symposium* (T. Fingscheidt and W. Kellermann, eds.), (Braunschweig, Germany), pp. 1–4, ITG, IEEE, September 2012. invited contribution
- 783) F. Weninger, M. Wöllmer, and B. Schuller, “Sparse, Hierarchical and Semi-Supervised Base Learning for Monaural Enhancement of Conversational Speech,” in *Proceedings 10th ITG Conference on Speech Communication* (T. Fingscheidt and W. Kellermann, eds.), (Braunschweig, Germany), pp. 1–4, ITG, IEEE, September 2012. invited contribution
- 784) W. Han, Z. Zhang, J. Deng, M. Wöllmer, F. Weninger, and B. Schuller, “Towards Distributed Recognition of Emotion in Speech,” in *Proceedings 5th International Symposium on Communications, Control, and Signal Processing, ISCCSP 2012*, (Rome, Italy), pp. 1–4, IEEE, IEEE, May 2012. invited contribution, Special Session Interactive Behaviour Analysis
- 785) F. Weninger and B. Schuller, “Fusing Utterance-Level Classifiers for Robust Intoxication Recognition from Speech,” in *Proceedings MMCogEmS 2011 Workshop (Inferring Cognitive and Emotional States from Multimodal Measures)*, held in conjunction with the 13th International Conference on Multimodal Interaction, ICMI 2011, (Alicante, Spain), ACM, ACM, November 2011. invited contribution, 2 pages (acceptance rate: 39%, IF* 1.77 (2010))
- 786) F. Weninger, B. Schuller, C. Liem, F. Kurth, and A. Hanjalic, “Music Information Retrieval: An Inspirational Guide to Transfer from Related Disciplines,” in *Multimodal Music Processing* (M. Müller and M. Goto, eds.), vol. Seminar 11041 of *Dagstuhl Follow-Ups*, (Schloss Dagstuhl, Germany), pp. 195–215, 2012. invited contribution
- 787) M. Wöllmer, N. Klebert, and B. Schuller, “Switching Linear Dynamic Models for Recognition of Emotionally Colored and Noisy Speech,” in *Proceedings 9th ITG Conference on Speech Communication*, vol. 225 of *ITG-Fachbericht*, (Bochum, Germany), ITG, VDE-Verlag, October 2010. invited contribution, Special Session Bayesian Methods for Speech Enhancement and Recognition, 4 pages
- 788) L. Devillers and B. Schuller, “The Essential Role of Language Resources for the Future of Affective Computing Systems: A Recognition Perspective,” in *Proceedings 2nd European Language Resources and Technologies Forum: Language Resources of the future – the future of Language Resources*, (Barcelona, Spain), FLReNet, February 2010. invited contribution, 2 pages
- 789) S. Steidl, B. Schuller, D. Seppi, and A. Batliner, “The Hinterland of Emotions: Facing the Open-Microphone Challenge,” in *Proceedings 3rd International Conference on Affective Computing and Intelligent Interaction and Workshops, ACII 2009*, vol. I, (Amsterdam, The Netherlands), pp. 690–697, HUMAINE Association, IEEE, September 2009. invited contribution, Special Session Recognition of Non-Prototypical Emotion from Speech – The final frontier?
- 790) P. Baggia, F. Burkhardt, C. Pelachaud, C. Peter, B. Schuller, I. Wilson, and E. Zovato, “Elements of an EmotionML 1.0,” tech. rep., W3C, November 2008
- 791) A. Batliner, D. Seppi, B. Schuller, S. Steidl, T. Vogt, J. Wagner, L. Devillers, L. Vidrascu, N. Amir, and V. Aharonson, “Patterns, Prototypes, Performance,” in *Pattern Recognition in Medical and Health Engineering, Proceedings HSS-Cooperation Seminar Ingenieurwissenschaftliche Beiträge für ein leistungsfähigeres Gesundheitssystem* (J. Hornegger, K. Höller, P. Ritt, A. Borsdorf, and H.-P. Niedermeier, eds.), (Wildbad Kreuth, Germany), pp. 85–86, July 2008. invited contribution
- 792) M. Grimm, K. Kroschel, B. Schuller, G. Rigoll, and T. Moosmayr, “Acoustic Emotion Recognition in Car Environment Using a 3D Emotion Space Approach,” in *Proceedings 33. Jahrestagung für Akustik, DAGA 2007*, (Stuttgart, Germany), pp. 313–314, DEGA, DEGA, March 2007. invited contribution
- 793) G. Rigoll, R. Müller, and B. Schuller, “Speech Emotion Recognition Exploiting Acoustic and Linguistic Information Sources,” in *Proceedings 10th International Conference Speech and Computer, SPECOM 2005* (G. Kokkinakis, ed.), vol. 1, (Patras, Greece), pp. 61–67, October 2005. invited contribution

Forewords (6):

- 794) B. Schuller, “Computers Hearing Pathologies – A Foreword,” in *Acoustic Analysis of Pathologies From Infancy to Young Adulthood* (A. Neustein and H. A. Patil, eds.), De Gruyter Series in Speech Technology and Text Analytics in Medicine and Healthcare, DeGruyter, 2019. invited, to appear
- 795) J. Tao, B. Schuller, and N. Campbell, “ACII Asia 2018 – AAC Asian Conference on Affective Computing and Intelligent Interaction in Beijing,” in *Proc. first Asian Conference on Affective Computing and Intelligent Interaction (ACII Asia 2018)*, (Beijing, P.R. China), AAC, IEEE, May 2018. 1 page
- 796) B. Schuller, “A decade of encouraging speech processing ‘outside of the box’ – a Foreword,” in *Recent Advances in Nonlinear Speech Processing – 7th International Conference, NOLISP 2015, Vietri sul Mare, Italy, May 18–19, 2015, Proceedings* (A. Esposito, M. Faundez-Zanuy, A. M. Esposito, G. Cordasco, T. Drugman, J. Solé-Casals, and C. F. Morabito, eds.), vol. 48, Smart Innovation, Systems and Technologies of Smart Innovation Systems and Technologies, pp. 3–4, Springer, 2015. invited
- 797) R. Cowie, Q. Ji, J. Tao, J. Gratch, and B. Schuller, “Foreword ACII 2015 – Affective Computing and Intelligent Interaction at Xi’an,” in *Proc. 6th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2015)*, (Xi’an, P.R. China), AAC, IEEE, September 2015. 2 pages
- 798) B. Schuller, “Foreword,” in *Sentic Computing – A Common-Sense-Based Framework for Concept-Level Sentiment Analysis* (E. Cambria and A. Hussain, eds.), pp. v–vi, Springer, 2 ed., 2015. invited foreword
- 799) B. Schuller, “Supervisor’s Foreword,” in *Real-time Speech and Music Classification by Large Audio Feature Space Extraction* (F. Eyben, ed.), Springer, 2015. invited foreword, 2 pages

Reviewed Technical Newsletter Contributions (5):

- 800) F. Eyben and B. Schuller, “openSMILE:) The Munich Open-Source Large-Scale Multimedia Feature Extractor,” *ACM SIGMM Records*, vol. 6, December 2014
- 801) B. Schuller, S. Steidl, and A. Batliner, “The INTERSPEECH 2013 Computational Paralinguistics Challenge – A Brief Review,” *Speech and Language Processing Technical Committee (SLTC) Newsletter*, November 2013
- 802) B. Schuller, S. Steidl, A. Batliner, F. Schiel, and J. Krajewski, “The INTERSPEECH 2011 Speaker State Challenge – A review,” *Speech and Language Processing Technical Committee (SLTC) Newsletter*, February 2012
- 803) B. Schuller and L. Devillers, “Emotion 2010 – On Recent Corpora for Research on Emotion and Affect,” *ELRA Newsletter, LREC 2010 Special Issue*, vol. 15, no. 1–2, pp. 18–18, 2010
- 804) B. Schuller, S. Steidl, A. Batliner, and F. Jurcicek, “The INTERSPEECH 2009 Emotion Challenge – Results and Lessons Learnt,” *Speech and Language Processing Technical Committee (SLTC) Newsletter*, October 2009

Technical Reports (26):

- 805) A. Baird, S. Hantke, and B. Schuller, “Responsible and Representative Multimodal Data Acquisition and Analysis: On Auditability, Benchmarking, Confidence, Data-Reliance & Explainability,” *arxiv.org*, March 2019. 4 pages

- 806) J. Kossaifi, R. Walecki, Y. Panagakis, J. Shen, M. Schmitt, F. Ringeval, J. Han, V. Pandit, B. Schuller, K. Star, E. Hajjiv, and M. Pantic, "SEWA DB: A Rich Database for Audio-Visual Emotion and Sentiment Research in the Wild," *arxiv.org*, January 2019. 19 pages
- 807) V. Pandit and B. Schuller, "On Many-to-Many Mapping Between Concordance Correlation Coefficient and Mean Square Error," *arxiv.org*, February 2019. 23 pages
- 808) P. Tzirakis, A. Papaioannou, A. Lattas, M. Tarasiou, B. Schuller, and S. Zafeiriou, "Synthesising 3D Facial Motion from "In-the-Wild" Speech," *arxiv.org*, April 2019. 10 pages
- 809) T. Wiest, N. Cummins, A. Baird, S. Hantke, J. Dineley, and B. Schuller, "Voice command generation using Progressive Wavegans," *arxiv.org*, March 2019. 7 pages
- 810) Z. Zhang, B. Wu, and B. Schuller, "Attention-Augmented End-to-End Multi-Task Learning for Emotion Prediction from Speech," *arxiv.org*, March 2019. 5 pages
- 811) Z. Zhang, J. Han, K. Qian, C. Janott, Y. Guo, and B. Schuller, "Snore-GANs: Improving Automatic Snore Sound Classification with Synthesized Data," *arxiv.org*, March 2019. 11 pages
- 812) G. Keren, M. Schmitt, T. Kehrenberg, and B. Schuller, "Weakly Supervised One-Shot Detection with Attention Siamese Networks," *arxiv.org*, January 2018. 11 pages
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