

Publications by Björn W. Schuller

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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. to appear
- 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 (42):

- 12) V. Pandit, S. Amiriparian, M. Schmitt, 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

- 13) B. Schuller, "Chinese and Other Tone Language Speech Emotion Recognition: An Overview," *IEEE/CAA Journal of Automatica Sinica*, 2017. 10 pages, invited contribution, to appear
- 14) 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
- 15) S. Bengio, L. Deng, L.-P. Morency, and B. Schuller, "Multidisciplinary 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
- 16) F. Ramos, A. Ross, and B. Schuller, "Multidisciplinary Challenge Topic: Perspectives on Strategic Fusion: What Can Neuroscience, Engineering, and Applications Experience Teach Us about Optimizing Multimodal Multi-sensor System Reliability?," 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. to appear
- 17) 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
- 18) 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
- 19) 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. Chang, and I. Kompatsiaris, eds.), Wiley, 2017. to appear
- 20) 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.), Elsevier, 2017. to appear
- 21) 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
- 22) F. Burkhardt, C. Pelachaud, B. Schuller, and E. Zovato, "Emotion Markup Language," in *Multimodal Interaction with W3C Standards: Towards Natural User Interfaces to Everything* (D. Dahl, ed.), pp. 65–80, Berlin/Heidelberg: Springer, 2017
- 23) 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
- 24) 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, 2015. invited contribution, to appear
- 25) 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

- 26) B. Schuller and F. Wenginger, "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
- 27) 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
- 28) 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
- 29) 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
- 30) 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
- 31) 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
- 32) 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
- 33) F. Wenginger, 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
- 34) 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
- 35) 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
- 36) B. Schuller and F. Wenginger, "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
- 37) 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
- 38) 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
- 39) 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
- 40) 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
- 41) 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
- 42) 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
- 43) 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
- 44) 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
- 45) 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-LISP 2009, Vic, Spain, June 25-27, 2009, Revised Selected Papers* (J. Sole-Casals and V. Zaiats, eds.), vol. 5933/2010 of *Lecture Notes on Computer Science (LNCS)*, pp. 68–75, Springer, 2010
- 46) 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
- 47) 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
- 48) 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))
- 49) 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
- 50) 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
- 51) 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
- 52) 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
- 53) B. Schuller, M. Ablamey, 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 (115)
- 54) 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))
- 55) 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: 2.491, 5-year IF: 2.501 (2016))
- 56) C. Janott, M. Schmitt, Y. Zhang, K. Qian, V. Pandit, Z. Zhang, C. Heiser, W. Hohenhorst, M. Herzog, W. Hemmert, and B. Schuller, “Snoring Classified: The Munich Passau Snore Sound Corpus,” *Computers in Biology and Medicine*, 2018. 25 pages, to appear (IF: 1.836, 5-year IF: 1.953)
- 57) Z. Zhang, J. T. Geiger, J. Pohjalainen, A. E. Mousa, W. Jin, and B. Schuller, “Deep Learning for Environmentally Robust Speech Recognition: An Overview of Recent Developments,” *ACM Transactions on Intelligent Systems and Technology*, 2018. 23 pages, to appear (IF: 3.19, 5-year IF: 10.47 (2016))
- 58) B. Schuller, Y. Zhang, and F. Weninger, “Three Recent Trends in Paralinguistics on the Way to Omniscient Machine Intelligence,” *Journal on Multimodal User Interfaces, Special Issue on Speech Communication*, vol. 10, 2017. 10 pages, to appear (IF: 1.031 (2016))
- 59) B. Schuller, “Can Affective Computing Save Lives? Meet Mobile Health.,” *IEEE Computer Magazine*, vol. 50, p. 40, 2017. (IF: 1.755, 5-year IF: 2.617 (2016))
- 60) B. Schuller, “Chinese and Other Tone Language Speech Emotion Recognition: An Overview,” *IEEE/CAA Journal of Automatica Sinica*, 2017. 10 pages, invited contribution, to appear
- 61) B. Schuller, “Maschinelle Profilierung durch KI,” *digma – Zeitschrift für Datenrecht und Informationssicherheit*, vol. 1, no. 4, pp. 204–210, 2017. invited contribution
- 62) B. W. Schuller and N. Cummins, “Speech Analysis for early and remote diagnosis: An Overview,” *Methods, Special Issue on on Translational data analytics and health informatics*, 2017. to appear (IF: 3.802, 5-year IF: 3.880 (2016))
- 63) B. Schuller, “Speech Emotion Recognition: 20 Years in a Nutshell, Benchmarks, and Ongoing Trends,” *Communications of the ACM*, 2017. 8 pages, to appear (IF: 4.027, 5-year IF: 6.469 (2016))
- 64) P. Buitelaar, I. D. Wood, S. Negi, M. Arcan, J. P. McCrae, A. Abele, C. Robin, V. Andryushchkin, H. Sagha, M. Schmitt, B. W. Schuller, J. F. Sánchez-Rada, C. A. Iglesias, C. Navarro, A. Giefer, N. Heise, V. Masucci, F. A. Danza, C. Caterino, P. Smrz, M. Hradis, F. Povolný, M. Klimes, P. Matejka, and G. Tummarello, “MixedEmotions: An Open-Source Toolbox for Multi-Modal Emotion Analysis,” *IEEE Transactions on Multimedia*, vol. 20, 2017. 15 pages, to appear (IF: 3.509, 5-year IF: 4.103 (2016))
- 65) 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. 12, 2017. 24 pages, to appear (IF: 2.806 (2016))
- 66) E. Coutinho and B. Schuller, “Shared Acoustic Codes Underlie Emotional Communication in Music and Speech – Evidence from Deep Transfer Learning,” *PLoS ONE*, vol. 12, June 2017. 24 pages (IF: 2.806 (2016))
- 67) J. Deng, S. Frühholz, Z. Zhang, and B. Schuller, “Recognizing Emotions From Whispered Speech Based on Acoustic Feature Transfer Learning,” *IEEE Access*, vol. 5, pp. 5235–5246, December 2017. (IF: 3.244, 5-year IF: 3.870 (2016))
- 68) J. Deng, X. Xu, Z. Zhang, S. Frühholz, and B. Schuller, “Universum Autoencoder-based Domain Adaptation for Speech Emotion Recognition,” *IEEE Signal Processing Letters*, vol. 24, no. 4, pp. 500–504, 2017. (acceptance rate: 17%, IF: 2.528, 5-year IF: 2.684 (2016))
- 69) J. Guo, K. Qian, G. Zhang, H. Xu, and B. Schuller, “Accelerating biomedical signal processing using GPU: A case study of snore sounds feature extraction,” *Interdisciplinary Sciences – Computational Life Sciences*, vol. 9, no. 4, pp. 550–555, 2017. (IF: 0.853 (2015))
- 70) J. Han, Z. Zhang, N. Cummins, F. Ringeval, and B. Schuller, “Strength Modelling for Real-World Automatic Continuous Affect Recognition from Audiovisual Signals,” *Image and Vision Computing, Special Issue on Multimodal Sentiment Analysis and Mining in the Wild*, vol. 65, pp. 76–86, September 2017. (IF: 2.671, 5-year IF: 2.939 (2016))
- 71) C. Janott, B. Schuller, and C. Heiser, “Akustische Informationen von Schnarchgeräuschen,” *HNO, Leitthemenheft “Schlafmedizin”*, vol. 22, pp. 1–10, February 2017. (IF: 0.852 (2015))
- 72) E. Marchi, F. Vesperini, S. Squartini, and B. Schuller, “Deep Recurrent Neural Network-based Autoencoders for Acoustic Novelty Detection,” *Computational Intelligence and Neuroscience*, vol. 2017, 2017. 14 pages (IF: 1.215 (2016))
- 73) P. B. Marschik, F. B. Pokorny, R. Peharz, D. Zhang, J. O’Muircheartaigh, H. Roeyers, S. Bölte, A. J. Spitale, B. Urlesberger, B. Schuller, L. Poustka, S. Ozonoff, F. Pernkopf, T. Pock, K. Tammimies, C. Enzinger, M. Krieger,

- I. Tomantschger, K. D. Bartl-Pokorny, J. Sigafos, L. Roche, G. Esposito, M. Gugatschka, K. Nielsen-Saines, C. Einspieler, W. E. Kaufmann, and The BEE-PRI study group, "A Novel Way to Measure and Predict Development: A Heuristic Approach to Facilitate the Early Detection of Neurodevelopmental Disorders," *Current Neurology and Neuroscience Reports*, vol. 17, no. 43, 2017. 15 pages (IF: 3.345 (2016))
- 74) A. Mencattini, E. Martinelli, F. Ringeval, B. Schuller, and C. Di Natale, "Continuous Estimation of Emotions in Speech by Dynamic Cooperative Speaker Models," *IEEE Transactions on Affective Computing*, vol. 8, pp. 314–327, July–September 2017. (IF: 3.149, 5-year IF: 4.728 (2016))
- 75) F. Mosciano, A. Mencattini, F. Ringeval, B. Schuller, E. Martinelli, and C. Di Natale, "An array of physical sensors and an adaptive regression strategy for emotion recognition in a noisy scenario," *Sensors & Actuators A: Physical*, vol. 266, 2017. 10 pages, to appear (IF: 2.499, 5-year IF: 2.478 (2016))
- 76) P. Tzirakis, G. Trigeorgis, M. A. Nicolaou, B. Schuller, and S. Zafeiriou, "End-to-End Multimodal Emotion Recognition using Deep Neural Networks," *IEEE Journal of Selected Topics in Signal Processing, Special Issue on End-to-End Speech and Language Processing*, 2017. 9 pages, to appear (IF: 5.301 (2016))
- 77) V. Pandit and B. Schuller, "A Novel Graphical Technique for Combinational Logic Representation and Optimization," *Complexity*, vol. 2017, 2017. 11 pages, to appear (IF: 4.621 (2016))
- 78) K. Qian, Z. Zhang, A. Baird, and B. Schuller, "Active Learning for Bird Sounds Classification," *Acta Acustica united with Acustica*, vol. 103, pp. 361–364, April 2017. (IF: 1.119, 5-year IF: 0.971 (2016))
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- 163) M. Wöllmer, B. Schuller, F. Eyben, and G. Rigoll, "Combining Long Short-Term Memory and Dynamic Bayesian Networks for Incremental Emotion-Sensitive Artificial Listening," *IEEE Journal of Selected Topics in Signal Processing, Special Issue on Speech Processing for Natural Interaction with Intelligent Environments*, vol. 4, pp. 867–881, October 2010. (IF: 2.571 (2010), > 100 citations)
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- 165) B. Schuller, M. Wöllmer, T. Moosmayr, and G. Rigoll, "Recognition of Noisy Speech: A Comparative Survey of Robust Model Architecture and Feature Enhancement," *EURASIP Journal on Audio, Speech, and Music Processing*, vol. 2009, no. Article ID 942617, 2009. 17 pages (acceptance rate: 33 %, IF: 0.709 (2011))
- 166) M. Wöllmer, M. Al-Hames, F. Eyben, B. Schuller, and G. Rigoll, "A Multidimensional Dynamic Time Warping Algorithm for Efficient Multimodal Fusion of Asynchronous Data Streams," *Neurocomputing*, vol. 73, pp. 366–380, December 2009. (IF: 1.440, 5-year IF: 1.459 (2009))
- 167) B. Schuller, F. Eyben, and G. Rigoll, "Tango or Waltz? – Putting Ballroom Dance Style into Tempo Detection," *EURASIP Journal on Audio, Speech, and Music Processing, Special Issue on Intelligent Audio, Speech, and Music Processing Applications*, vol. 2008, no. Article ID 846135, 2008. 12 pages (acceptance rate: 33 %, IF: 0.709 (2011))
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C) REFEREED CONFERENCE PROCEEDINGS

Contributions to Conference Proceedings (393):

- 169) Y. Li, J. Tao, B. Schuller, S. Shan, D. Jiang, and J. Jia, "MEC 2017: Multimodal Emotion Recognition Challenge 2017," in *Proceedings of the first Asian Conference on Affective Computing and Intelligent Interaction (ACII Asia 2018)*, (Beijing, P.R. China), AAAC, IEEE, May 2018. 5 pages, to appear
- 170) B. Schuller, "Big Data, Deep Learning – At the Edge of X-Ray Speaker Analysis," in *Proceedings 19th International Conference on Speech and Computer, SPECOM 2017, Hatfield, UK, 12.-16.09.2017*, Lecture Notes in Computer Science (LNCS), pp. 20–34, Berlin/Heidelberg: Springer, September 2017
- 171) B. Schuller, "Reading the Author and Speaker: Towards a Holistic Approach on Automatic Assessment of What is in One's Words," in *Proceedings 18th International Conference on Intelligent Text Processing and Computational Linguistics, CICLING 2017, Budapest, Hungary, 17.-23.04.2017*, Lecture Notes in Computer Science (LNCS), Berlin/Heidelberg: Springer, April 2017. 12 pages, to appear
- 172) B. Schuller, S. Steidl, A. Batliner, E. Bergelson, J. Krajewski, C. Janott, A. Amatuni, M. Casillas, A. Seidl, M. Soderstrom, A. Warlaumont, G. Hidalgo, S. Schnieder, C. Heiser, W. Hohenhorst, M. Herzog, M. Schmitt, K. Qian, Y. Zhang, G. Trigeorgis, P. Tzirakis, and S. Zafeiriou, "The INTERSPEECH 2017 Computational Paralinguistics Challenge: Addressee, Cold & Snoring," in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 3442–3446, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 173) S. Amiriparian, S. Pugachevskiy, N. Cummins, S. Hantke, J. Pohjalainen, G. Keren, and B. Schuller, "CAST a database: Rapid targeted large-scale big data acquisition via small-world modelling of social media platforms," in *Proc. 7th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2017)*, (San Antonio, TX), pp. 340–345, AAAC, IEEE, October 2017. (acceptance rate: 50 %)
- 174) S. Amiriparian, M. Freitag, N. Cummins, and B. Schuller, "Feature Selection in Multimodal Continuous Emotion Prediction," in *Proc. 2nd International Workshop on Automatic Sentiment Analysis in the Wild (WASA 2017) held in conjunction with the 7th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2017)*, (San Antonio, TX), pp. 30–37, AAAC, IEEE, October 2017
- 175) S. Amiriparian, N. Cummins, S. Ottl, M. Gerczuk, and B. Schuller, "Sentiment Analysis Using Image-based Deep Spectrum Features," in *Proc. 2nd International Workshop on*

- Automatic Sentiment Analysis in the Wild (WASA 2017) held in conjunction with the 7th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2017)*, (San Antonio, TX), pp. 26–29, AAAC, IEEE, October 2017
- 176) S. Amiriparian, M. Gerczuk, S. Ottl, N. Cummins, M. Freitag, S. Pugachevskiy, and B. Schuller, “Snore Sound Classification Using Image-based Deep Spectrum Features,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 3512–3516, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 177) S. Amiriparian, M. Freitag, N. Cummins, and B. Schuller, “Sequence to Sequence Autoencoders for Unsupervised Representation Learning from Audio,” in *Proceedings of the Detection and Classification of Acoustic Scenes and Events 2017 Workshop (DCASE2017)*, (Munich, Germany), pp. 17–21, IEEE, IEEE, November 2017
- 178) A. Baird, S. Amiriparian, N. Cummins, A. M. Alcorn, A. Batliner, S. Pugachevskiy, M. Freitag, M. Gerczuk, and B. Schuller, “Automatic Classification of Autistic Child Vocalisations: A Novel Database and Results,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 849–853, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 179) A. Baird, S. H. Jorgensen, E. Parada-Cabaleiro, S. Hantke, N. Cummins, and B. Schuller, “Perception of Paralinguistic Traits in Synthesized Voices,” in *Proceedings of the 11th Audio Mostly Conference on Interaction with Sound (Audio Mostly)*, (London, UK), ACM, ACM, August 2017. 5 pages, to appear
- 180) J. Böhm, F. Eyben, M. Schmitt, H. Kosch, and B. Schuller, “Seeking the SuperStar: Automatic Assessment of Perceived Singing Quality,” in *Proceedings 30th International Joint Conference on Neural Networks (IJCNN)*, (Anchorage, AK), pp. 1560–1569, IEEE, IEEE, May 2017. (acceptance rate: 67 %)
- 181) R. Brückner, M. Schmitt, M. Pantic, and B. Schuller, “Spotting Social Signals in Conversational Speech over IP: A Deep Learning Perspective,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 2371–2375, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
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- 183) T. Chen, K. Qian, A. Mutanen, B. Schuller, P. Järventausta, and W. Su, “Classification of Electricity Customer Groups Towards Individualized Price Scheme Design,” in *Proceedings 49th North American Power Symposium (NAPS)*, (Morgantown, WV), IEEE, IEEE, September 2017. 5 pages, to appear
- 184) N. Cummins, S. Amiriparian, G. Hagerer, A. Batliner, S. Steidl, and B. Schuller, “An Image-based Deep Spectrum Feature Representation for the Recognition of Emotional Speech,” in *Proceedings of the 25th ACM International Conference on Multimedia, MM 2017*, (Mountain View, CA), ACM, ACM, October 2017. 7 pages, to appear (oral acceptance rate: 7.5 %)
- 185) N. Cummins, B. Vlasenko, H. Sagha, and B. Schuller, “Enhancing speech-based depression detection through gender dependent vowel level formant features,” in *Proc. 16th Conference on Artificial Intelligence in Medicine (AIME)*, (Vienna, Austria), pp. 209–214, Society for Artificial Intelligence in MEDicine (AIME), June 2017
- 186) N. Cummins, M. Schmitt, S. Amiriparian, J. Krajewski, and B. Schuller, “You sound ill, take the day off: Classification of speech affected by Upper Respiratory Tract Infection,” in *Proceedings of the 39th Annual International Conference of the IEEE Engineering in Medicine & Biology Society, EMBC 2017*, (Jeju Island, South Korea), pp. 3806–3809, IEEE, IEEE, July 2017
- 187) J. Deng, F. Eyben, B. Schuller, and F. Burkhardt, “Deep Neural Networks for Anger Detection from Real Life Speech Data,” in *Proc. 2nd International Workshop on Automatic Sentiment Analysis in the Wild (WASA 2017) held in conjunction with the 7th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2017)*, (San Antonio, TX), pp. 1–6, AAAC, IEEE, October 2017
- 188) J. Deng, N. Cummins, M. Schmitt, K. Qian, F. Ringeval, and B. Schuller, “Speech-based Diagnosis of Autism Spectrum Condition by Generative Adversarial Network Representations,” in *Proceedings of the 7th International Conference on Digital Health, DH 2017*, (London, U.K.), pp. 53–57, ACM, ACM, July 2017
- 189) F. Eyben, M. Unfried, G. Hagerer, and B. Schuller, “Automatic Multi-lingual Arousal Detection from Voice Applied to Real Product Testing Applications,” in *Proceedings 42nd IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017*, (New Orleans, LA), pp. 5155–5159, IEEE, IEEE, March 2017. (acceptance rate: 49 %, IF* 1.16 (2010))
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- 193) G. Hagerer, F. Eyben, H. Sagha, D. Schuller, and B. Schuller, “VoicePlay - An Affective Sports Game Operated by Speech Emotion Recognition based on the Component Process Model,” in *Proc. 7th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2017)*, (San Antonio, TX), pp. 74–76, AAAC, IEEE, October 2017
- 194) G. Hagerer, N. Cummins, F. Eyben, and B. Schuller, ““Did you laugh enough today?” – Deep Neural Networks for Mobile and Wearable Laughter Trackers,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 2044–2045, ISCA, ISCA, August 2017. Show & Tell demonstration (acceptance rate: 67 %)
- 195) G. Hagerer, V. Pandit, F. Eyben, and B. Schuller, “Enhancing LSTM RNN-based Speech Overlap Detection by Artificially Mixed Data,” in *Proceedings AES 56th International Conference on Semantic Audio*, (Erlangen, Germany), pp. 1–8, AES, Audio Engineering Society, June 2017
- 196) J. Han, Z. Zhang, M. Schmitt, M. Pantic, and B. Schuller, “From Hard to Soft: Towards more Human-like Emotion Recognition by Modelling the Perception Uncertainty,” in *Proceedings of the 25th ACM International Conference on Multimedia, MM 2017*, (Mountain View, CA), ACM, ACM, October 2017. 8 pages, to appear (acceptance rate: 28 %)
- 197) J. Han, Z. Zhang, F. Ringeval, and B. Schuller, “Prediction-based Learning from Continuous Emotion Recognition in Speech,” in *Proceedings 42nd IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017*, (New Orleans, LA), pp. 5005–5009, IEEE, IEEE, March 2017. (acceptance rate: 49 %, IF* 1.16 (2010))
- 198) J. Han, Z. Zhang, F. Ringeval, and B. Schuller, “Reconstruction-error-based Learning for Continuous Emotion Recognition in Speech,” in *Proceedings 42nd IEEE International Conference*

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- 199) S. Hantke, H. Sagha, N. Cummins, and B. Schuller, “Emotional Speech of Mentally and Physically Disabled Individuals: Introducing The EmotAsS Database and First Findings,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 3137–3141, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 200) S. Hantke, Z. Zhang, and B. Schuller, “Towards Intelligent Crowdsourcing for Audio Data Annotation: Integrating Active Learning in the Real World,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 3951–3955, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 201) G. Keren, T. Kirschstein, E. Marchi, F. Ringeval, and B. Schuller, “End-to-end learning for dimensional emotion recognition from physiological signals,” in *Proceedings 18th IEEE International Conference on Multimedia and Expo, ICME 2017*, (Hong Kong, P. R. China), pp. 985–990, IEEE, IEEE, July 2017. (acceptance rate: 30 %, IF* 0.88 (2010))
- 202) G. Keren, S. Sabato, and B. Schuller, “Tunable Sensitivity to Large Errors in Neural Network Training,” in *Proceedings of the 31st AAAI Conference on Artificial Intelligence, AAAI 17*, (San Francisco, CA), pp. 2087–2093, AAAI, February 2017. (acceptance rate: 25 %)
- 203) C. Kohlschein, M. Schmitt, B. W. Schuller, S. Jeschke, and C. Werner, “A Machine Learning Based System for the Automatic Evaluation of Aphasia Speech,” in *Proc. 2017 IEEE 19th International Conference on e-Health Networking, Applications and Services (Healthcom)*, (Dalian, China), IEEE, IEEE, October 2017. to appear
- 204) A. E.-D. Mousa and B. Schuller, “Contextual Bidirectional Long Short-Term Memory Recurrent Neural Network Language Models: A Generative Approach to Sentiment Analysis,” in *Proceedings EAACL 2017, 15th Conference of the European Chapter of the Association for Computational Linguistics*, (Valencia, Spain), pp. 1023–1032, ACL, ACL, April 2017. (acceptance rate: 27 % for long papers)
- 205) E. Parada-Cabaleiro, A. E. Baird, N. Cummins, and B. Schuller, “Stimulation of Psychological Listener Experiences by Semi-Automatically Composed Electroacoustic Environments,” in *Proceedings 18th IEEE International Conference on Multimedia and Expo, ICME 2017*, (Hong Kong, P.R. China), pp. 1051–1056, IEEE, IEEE, July 2017. (acceptance rate: 30 %, IF* 0.88 (2010))
- 206) E. Parada-Cabaleiro, A. Baird, A. Batliner, N. Cummins, S. Hantke, and B. Schuller, “The Perception of Emotions in Noisified Non-Sense Speech,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 3246–3250, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 207) E. Parada-Cabaleiro, A. Batliner, A. E. Baird, and B. Schuller, “The Perception of Emotion in the Singing Voice,” in *Proceedings 4th International Digital Libraries for Musicology workshop (DLfM 2017) at the 18th International Society for Music Information Retrieval Conference, ISMIR 2017*, (Suzhou, P.R. China), ISMIR, ISMIR, October 2017. 8 pages, to appear
- 208) E. Parada-Cabaleiro, A. Batliner, A. E. Baird, and B. Schuller, “The SEILS dataset: Symbolically Encoded Scores in Modern-Ancient Notation for Computational Musicology,” in *Proceedings 18th International Society for Music Information Retrieval Conference, ISMIR 2017*, (Suzhou, P.R. China), ISMIR, ISMIR, October 2017. 5 pages, to appear
- 209) F. Pokorný, B. Schuller, P. Marschik, R. Brückner, P. Nyström, N. Cummins, S. Bölte, C. Einspieler, and T. Falck-Ytter, “Earlier Identification of Children with Autism Spectrum Disorder: An Automatic Vocalisation-based Approach,” in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 309–313, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 210) K. Qian, C. Janott, J. Deng, C. Heiser, W. Hohenhorst, N. Cummins, and B. Schuller, “Snore Sound Recognition: On Wavelets and Classifiers from Deep Nets to Kernels,” in *Proceedings of the 39th Annual International Conference of the IEEE Engineering in Medicine & Biology Society, EMBC 2017*, (Jeju Island, South Korea), pp. 3737–3740, IEEE, IEEE, July 2017
- 211) K. Qian, Z. Ren, V. Pandit, Z. Yang, Z. Zhang, and B. Schuller, “Wavelets Revisited for the Classification of Acoustic Scenes,” in *Proceedings of the Detection and Classification of Acoustic Scenes and Events 2017 Workshop (DCASE2017)*, (Munich, Germany), pp. 108–112, IEEE, IEEE, November 2017
- 212) Z. Ren, K. Qian, V. Pandit, Z. Zhang, Z. Yang, and B. Schuller, “Deep Sequential Image Features on Acoustic Scene Classification,” in *Proceedings of the Detection and Classification of Acoustic Scenes and Events 2017 Workshop (DCASE2017)*, (Munich, Germany), pp. 113–117, IEEE, IEEE, November 2017
- 213) F. Ringeval, B. Schuller, M. Valstar, J. Gratch, R. Cowie, S. Scherer, S. Mozgai, N. Cummins, M. Schmitt, and M. Pantic, “AVEC 2017 – Real-life Depression, and Affect Recognition Workshop and Challenge,” in *Proceedings of the 7th International Workshop on Audio/Visual Emotion Challenge, AVEC’17, co-located with the 25th ACM International Conference on Multimedia, MM 2017* (F. Ringeval, M. Valstar, J. Gratch, B. Schuller, R. Cowie, and M. Pantic, eds.), (Mountain View, CA), ACM, ACM, October 2017. 6 pages, to appear
- 214) F. Ringeval, M. Valstar, J. Gratch, B. Schuller, R. Cowie, and M. Pantic, “Summary for AVEC 2017 – Real-life Depression, and Affect Recognition Workshop and Challenge,” in *Proceedings of the 25th ACM International Conference on Multimedia, MM 2017*, (Mountain View, CA), pp. 1963–1964, ACM, ACM, October 2017
- 215) D. L. Tran, R. Walecki, O. Rudovic, S. Eleftheriadis, B. Schuller, and M. Pantic, “DeepCoder: Semi-parametric Autoencoder for Facial Expression Analysis,” in *Proceedings International Conference on Computer Vision, ICCV 2017*, (Venice, Italy), IEEE, IEEE, October 2017. 10 pages, to appear
- 216) O. Rudovic, J. Lee, L. Mascarell-Maricic, B. W. Schuller, and R. Picard, “Engagement in Autism Therapy with Social Robots: a Cross-cultural Study,” in *Proceedings International Conference on Robotics and Automation, ICRA*, (Singapore, Singapore), IEEE, IEEE, May–June 2017. 1 page, to appear
- 217) R. Sabathé, E. Coutinho, and B. Schuller, “Deep Recurrent Music Writer: Memory-enhanced Variational Autoencoder-based Musical Score Composition and an Objective Measure,” in *Proceedings 30th International Joint Conference on Neural Networks (IJCNN)*, (Anchorage, AK), pp. 3467–3474, IEEE, IEEE, May 2017. (acceptance rate: 67 %)
- 218) H. Sagha, M. Schmitt, F. Povolny, A. Giefer, and B. Schuller, “Predicting the popularity of a talk-show based on its emotional speech content before publication,” in *Proceedings 3rd International Workshop on Affective Social Multimedia Computing, INTERSPEECH 2017 Satellite Workshop, ASMMC 2017*, (Stockholm, Sweden), ISCA, ISCA, August 2017. 5 pages
- 219) H. Sagha, J. Deng, and B. Schuller, “The effect of personality trait, age, and gender on the performance of automatic speech valence recognition,” in *Proc. 7th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2017)*, (San Antonio, TX), pp. 86–91, AAAC, IEEE, October 2017. (acceptance rate: 50 %)
- 220) J. F. Sánchez-Rada, C. A. Iglesias, H. Sagha, I. Wood, B. Schuller, and P. Buitelaar, “Multimodal Multimodel Emotion Analysis as Linked Data,” in *Proc. 3rd International Workshop on Emotion and Sentiment in Social and Expressive Media (ESSEM 2017), held in conjunction with the 7th biannual Conference on Affective Computing and Intelligent Interaction*

- (*ACII 2017*), (San Antonio, TX), AAAC, IEEE, October 2017. 111-116
- 221) M. Schmitt and B. Schuller, "Recognising Guitar Effects – Which Acoustic Features Really Matter?," in *Proceedings INFORMATIK 2017* (M. Eibl and M. Gaedke, eds.), Lecture Notes in Informatics (LNI), (Chemnitz, Germany), pp. 177–190, GI, GI, September 2017
- 222) B. Vlasenko, H. Sagma, N. Cummins, and B. Schuller, "Implementing gender-dependent vowel-level analysis for boosting speech-based depression recognition," in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 3266–3270, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 223) R. Walecki, O. Rudovic, V. Pavlovic, B. Schuller, and M. Pantic, "Deep Structured Ordinal Regression for Facial Action Unit Intensity Estimation," in *Proceedings IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2017*, (Honolulu, HI), IEEE, IEEE, July 2017. (acceptance rate: 20 %, IF* 5.97 (2010))
- 224) Y. Zhang, W. McGehee, M. Schmitt, F. Eyben, and B. Schuller, "A Paralinguistic Approach To Holistic Speaker Diarisation – Using Age, Gender, Voice Likability and Personality Traits," in *Proceedings of the 25th ACM International Conference on Multimedia, MM 2017*, (Mountain View, CA), ACM, ACM, October 2017. 6 pages, to appear (acceptance rate: 28 %)
- 225) Y. Zhang, F. Weninger, and B. Schuller, "Cross-Domain Classification of Drowsiness in Speech: The Case of Alcohol Intoxication and Sleep Deprivation," in *Proceedings INTERSPEECH 2017, 18th Annual Conference of the International Speech Communication Association*, (Stockholm, Sweden), pp. 3152–3156, ISCA, ISCA, August 2017. (acceptance rate: 51 %)
- 226) H. S. O. Strömfelt, Y. Zhang, and B. Schuller, "Emotion-Augmented Machine Learning: Overview of an Emerging Domain," in *Proc. 7th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2017)*, (San Antonio, TX), pp. 305–312, AAAC, IEEE, October 2017. (acceptance rate oral: 27 %)
- 227) Y. Zhang, Y. Liu, F. Weninger, and B. Schuller, "Multi-Task Deep Neural Network with Shared Hidden Layers: Breaking Down the Wall between Emotion Representations," in *Proceedings 42nd IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017*, (New Orleans, LA), pp. 4990–4994, IEEE, IEEE, March 2017. (acceptance rate: 49 %, IF* 1.16 (2010))
- 228) Z. Zhang, F. Weninger, M. Wöllmer, J. Han, and B. Schuller, "Towards Intoxicated Speech Recognition," in *Proceedings 30th International Joint Conference on Neural Networks (IJCNN)*, (Anchorage, AK), pp. 1555–1559, IEEE, IEEE, May 2017. (acceptance rate: 67 %)
- 229) B. Schuller, "7 Essential Principles to Make Multimodal Sentiment Analysis Work in the Wild," in *Proceedings of the 4th Workshop on Sentiment Analysis where AI meets Psychology (SAIIP 2016)*, satellite of the 25th International Joint Conference on Artificial Intelligence, *IJCAI 2016* (S. Bandyopadhyay, D. Das, E. Cambria, and B. G. Patra, eds.), vol. 1619, (New York City, NY), p. 1, *IJCAI/AAAI*, CEUR, July 2016. invited contribution
- 230) B. Schuller, J.-G. Ganascia, and L. Devillers, "Multimodal Sentiment Analysis in the Wild: Ethical considerations on Data Collection, Annotation, and Exploitation," in *Proceedings of the 1st International Workshop on ETHics In Corpus Collection, Annotation and Application (ETHI-CA² 2016)*, satellite of the 10th Language Resources and Evaluation Conference (*LREC 2016*) (L. Devillers, B. Schuller, E. Mower Provost, P. Robinson, J. Mariani, and A. Delaborde, eds.), (Portoroz, Slovenia), pp. 29–34, ELRA, ELRA, May 2016
- 231) B. Schuller and M. McTear, "Sociocognitive Language Processing – Emphasising the Soft Factors," in *Proceedings of the Seventh International Workshop on Spoken Dialogue Systems (IWSDS)*, (Saariselkä, Finland), January 2016. 6 pages
- 232) B. Schuller, S. Steidl, A. Batliner, J. Hirschberg, J. K. Burgoon, A. Baird, A. Elkins, Y. Zhang, E. Coutinho, and K. Evanini, "The INTERSPEECH 2016 Computational Paralinguistics Challenge: Deception, Sincerity & Native Language," in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 2001–2005, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 233) I. Abdić, L. Fridman, D. McDuff, E. Marchi, B. Reimer, and B. Schuller, "Driver Frustration Detection From Audio and Video," in *Proceedings of the 25th International Joint Conference on Artificial Intelligence, IJCAI 2016*, (New York City, NY), pp. 1354–1360, *IJCAI/AAAI*, July 2016. (acceptance rate: 25 %)
- 234) I. Abdić, L. Fridman, D. E. Brown, W. Angell, B. Reimer, E. Marchi, and B. Schuller, "Detecting Road Surface Wetness from Audio: A Deep Learning Approach," in *Proceedings 23rd International Conference on Pattern Recognition (ICPR 2016)*, (Cancun, Mexico), pp. 3458–3463, *IAPR*, *IAPR*, December 2016
- 235) I. Abdić, L. Fridman, D. McDuff, E. Marchi, B. Reimer, and B. Schuller, "Driver Frustration Detection From Audio and Video (Extended Abstract)," in *KI 2016: Advances in Artificial Intelligence 39th Annual German Conference on AI* (G. Friedrich, M. Helmert, and F. Wotawa, eds.), vol. LNCS Volume 9904/2016, (Klagenfurt, Austria), pp. 237–243, *GfI / ÖGAI*, Springer, September 2016. (acceptance rate: 45 %)
- 236) S. Amiriparian, J. Pohjalainen, E. Marchi, S. Pugachevskiy, and B. Schuller, "Is deception emotional? An emotion-driven predictive approach," in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 2011–2015, ISCA, ISCA, September 2016. nominated for best student paper award (12 nominations for 3 awards, acceptance rate overall conference: 50 %)
- 237) E. Cambria, S. Poria, R. Bajpai, and B. Schuller, "SenticNet4: A Semantic Resource for Sentiment Analysis Based on Conceptual Primitives," in *Proceedings of the 26th International Conference on Computational Linguistics, COLING*, (Osaka, Japan), pp. 2666–2677, *ICCL*, *ANLP*, December 2016
- 238) E. Coutinho, F. Hönl, Y. Zhang, S. Hantke, A. Batliner, E. Nöth, and B. Schuller, "Assessing the Prosody of Non-Native Speakers of English: Measures and Feature Sets," in *Proceedings 10th Language Resources and Evaluation Conference (LREC 2016)*, (Portoroz, Slovenia), pp. 1328–1332, *ELRA*, *ELRA*, May 2016
- 239) J. Deng, N. Cummins, J. Han, X. Xu, Z. Ren, V. Pandit, Z. Zhang, and B. Schuller, "The University of Passau Open Emotion Recognition System for the Multimodal Emotion Challenge," in *Proceedings of the 7th Chinese Conference on Pattern Recognition, CCPR*, (Chengdu, P.R. China), pp. 652–666, Springer, November 2016
- 240) B. Dong, Z. Zhang, and B. Schuller, "Empirical Mode Decomposition: A Data-Enrichment Perspective on Speech Emotion Recognition," in *Proceedings of the 6th International Workshop on Emotion and Sentiment Analysis (ESA 2016)*, satellite of the 10th Language Resources and Evaluation Conference (*LREC 2016*) (J. F. Sánchez-Rada and B. Schuller, eds.), (Portoroz, Slovenia), pp. 71–75, *ELRA*, *ELRA*, May 2016. (acceptance rate: 74 %)
- 241) J. Guo, K. Qian, H. Xu, C. Janott, B. W. Schuller, and S. Matsuoka, "GPU-Based Fast Signal Processing for Large Amounts of Snore Sound Data," in *Proceedings IEEE 5th Global Conference on Consumer Electronics, GCCE 2016*, (Kyoto, Japan), pp. 523–524, IEEE, IEEE, October 2016. (acceptance rate: 66 %)
- 242) S. Hantke, A. Batliner, and B. Schuller, "Ethics for Crowd-

- sourced Corpus Collection, Data Annotation and its Application in the Web-based Game iHEARu-PLAY,” in *Proceedings of the 1st International Workshop on ETHics In Corpus Collection, Annotation and Application (ETHI-CA² 2016)*, satellite of the 10th Language Resources and Evaluation Conference (LREC 2016) (L. Devillers, B. Schuller, E. Mower Provost, P. Robinson, J. Mariani, and A. Delaborde, eds.), (Portoroz, Slovenia), pp. 54–59, ELRA, ELRA, May 2016. (oral acceptance rate: 45 %)
- 243) S. Hantke, E. Marchi, and B. Schuller, “Introducing the Weighted Trustability Evaluator for Crowdsourcing Exemplified by Speaker Likability Classification,” in *Proceedings 10th Language Resources and Evaluation Conference (LREC 2016)*, (Portoroz, Slovenia), pp. 2156–2161, ELRA, ELRA, May 2016
- 244) G. Keren, J. Deng, J. Pohjalainen, and B. Schuller, “Convolutional Neural Networks and Data Augmentation for Classifying Speakers’ Native Language,” in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 2393–2397, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 245) G. Keren and B. Schuller, “Convolutional RNN: an Enhanced Model for Extracting Features from Sequential Data,” in *Proceedings 2016 International Joint Conference on Neural Networks (IJCNN) as part of the IEEE World Congress on Computational Intelligence (IEEE WCCI)*, (Vancouver, Canada), pp. 3412–3419, IEEE, IEEE, July 2016
- 246) Y. Li, J. Tao, B. Schuller, S. Shan, D. Jiang, and J. Jia, “MEC 2016: The Multimodal Emotion Recognition Challenge of CCPR 2016,” in *Proceedings of the 7th Chinese Conference on Pattern Recognition, CCPR*, (Chengdu, P.R. China), pp. 667–678, Springer, November 2016
- 247) E. Marchi, D. Tonelli, X. Xu, F. Ringeval, J. Deng, S. Squartini, and B. Schuller, “Pairwise Decomposition with Deep Neural Networks and Multiscale Kernel Subspace Learning for Acoustic Scene Classification,” in *Proceedings of the Detection and Classification of Acoustic Scenes and Events 2016 IEEE AASP Challenge Workshop (DCASE 2016)*, satellite to *EUSIPCO 2016*, (Budapest, Hungary), pp. 1–5, EUSIPCO, IEEE, September 2016
- 248) E. Marchi, F. Eyben, G. Hagerer, and B. W. Schuller, “Real-time Tracking of Speakers’ Emotions, States, and Traits on Mobile Platforms,” in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 1182–1183, ISCA, ISCA, September 2016. Show & Tell demonstration (acceptance rate: 50 %)
- 249) E. Marchi, D. Tonelli, X. Xu, F. Ringeval, J. Deng, S. Squartini, and B. Schuller, “The UP System for the 2016 DCASE Challenge using Deep Recurrent Neural Network and Multiscale Kernel Subspace Learning,” in *Proceedings of the Detection and Classification of Acoustic Scenes and Events 2016 IEEE AASP Challenge Workshop (DCASE 2016)*, satellite to *EUSIPCO 2016*, (Budapest, Hungary), EUSIPCO, IEEE, September 2016. 1 page
- 250) A. E.-D. Mousa and B. Schuller, “Deep Bidirectional Long Short-Term Memory Recurrent Neural Networks for Grapheme-to-Phoneme Conversion utilizing Complex Many-to-Many Alignments,” in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 2836–2840, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 251) F. B. Pokorny, P. B. Marschik, C. Einspieler, and B. W. Schuller, “Does She Speak RTT? Towards an Earlier Identification of Rett Syndrome Through Intelligent Pre-linguistic Vocalisation Analysis,” in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 1953–1957, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 252) F. B. Pokorny, R. Peharz, W. Roth, M. Zohrer, F. Pernkopf, P. B. Marschik, and B. W. Schuller, “Manual Versus Automated: The Challenging Routine of Infant Vocalisation Segmentation in Home Videos to Study Neuro(mal)development,” in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 2997–3001, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 253) K. Qian, C. Janott, Z. Zhang, C. Heiser, and B. Schuller, “Wavelet Features for Classification of VOTE Snore Sounds,” in *Proceedings 41st IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2016*, (Shanghai, P.R. China), pp. 221–225, IEEE, IEEE, March 2016. (acceptance rate: 45 %, IF* 1.16 (2010))
- 254) M. Pantic, V. Evers, M. Deisenroth, L. Merino, and B. Schuller, “Social and Affective Robotics Tutorial,” in *Proceedings of the 24th ACM International Conference on Multimedia, MM 2016*, (Amsterdam, The Netherlands), pp. 1477–1478, ACM, ACM, October 2016. (acceptance rate short paper: 30 %, IF* 2.45 (2010))
- 255) J. Pohjalainen, F. Ringeval, Z. Zhang, and B. Schuller, “Spectral and Cepstral Audio Noise Reduction Techniques in Speech Emotion Recognition,” in *Proceedings of the 24th ACM International Conference on Multimedia, MM 2016*, (Amsterdam, The Netherlands), pp. 670–674, ACM, ACM, October 2016. (acceptance rate short paper: 30 %, IF* 2.45 (2010))
- 256) F. Ringeval, E. Marchi, C. Grossard, J. Xavier, M. Chetouani, D. Cohen, and B. Schuller, “Automatic Analysis of Typical and Atypical Encoding of Spontaneous Emotion in the Voice of Children,” in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 1210–1214, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 257) A. Rynkiewicz, B. Schuller, E. Marchi, S. Piana, A. Camurri, A. Lassalle, and S. Baron-Cohen, “An Investigation of the ‘Female Camouflage Effect’ in Autism Using a New Computerized Test Showing Sex/Gender Differences during ADOS-2,” in *Proceedings 15th Annual International Meeting For Autism Research (IMFAR 2016)*, (Baltimore, MD), International Society for Autism Research (INSAR), INSAR, May 2016. 1 page
- 258) H. Sagha, J. Deng, M. Gavryukova, J. Han, and B. Schuller, “Cross Lingual Speech Emotion Recognition using Canonical Correlation Analysis on Principal Component Subspace,” in *Proceedings 41st IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2016*, (Shanghai, P.R. China), pp. 5800–5804, IEEE, IEEE, March 2016. (acceptance rate: 45 %, IF* 1.16 (2010))
- 259) H. Sagha, P. Matejka, M. Gavryukova, F. Povolny, E. Marchi, and B. Schuller, “Enhancing multilingual recognition of emotion in speech by language identification,” in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 2949–2953, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 260) J. F. Sánchez-Rada, B. Schuller, V. Patti, P. Buitelaar, G. Vulcu, F. Burkhardt, C. Clavel, M. Petychakis, and C. A. Iglesias, “Towards a Common Linked Data Model for Sentiment and Emotion Analysis,” in *Proceedings of the 6th International Workshop on Emotion and Sentiment Analysis (ESA 2016)*, satellite of the 10th Language Resources and Evaluation Conference (LREC 2016) (J. F. Sánchez-Rada and B. Schuller, eds.), (Portoroz, Slovenia), pp. 48–54, ELRA, ELRA, May 2016. (acceptance rate: 42 % for long papers)
- 261) M. Schmitt, C. Janott, V. Pandit, K. Qian, C. Heiser, W. Hemmert, and B. Schuller, “A Bag-of-Audio-Words Approach for Snore Sounds’ Excitation Localisation,” in *Proceedings 14th ITG Conference on Speech Communication*, vol. 267 of *ITG-Fachbericht*, (Paderborn, Germany), pp. 230–234, ITG/VDE, IEEE/VDE, October 2016. nominated for best student paper award (4 nominations for 2 awards)

- 262) M. Schmitt, F. Ringeval, and B. Schuller, "At the Border of Acoustics and Linguistics: Bag-of-Audio-Words for the Recognition of Emotions in Speech," in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 495–499, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 263) M. Schmitt, E. Marchi, F. Ringeval, and B. Schuller, "Towards Cross-lingual Automatic Diagnosis of Autism Spectrum Condition in Children's Voices," in *Proceedings 14th ITG Conference on Speech Communication*, vol. 267 of *ITG-Fachbericht*, (Paderborn, Germany), pp. 264–268, ITG/VDE, IEEE/VDE, October 2016
- 264) M. Telespan and B. Schuller, "Audio Watermarking Based on Empirical Mode Decomposition and Beat Detection," in *Proceedings 41st IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2016*, (Shanghai, P.R. China), pp. 2124–2128, IEEE, IEEE, March 2016. (acceptance rate: 45 %, IF* 1.16 (2010))
- 265) G. Trigeorgis, F. Ringeval, R. Brückner, E. Marchi, M. Nicolaou, B. Schuller, and S. Zafeiriou, "Adieu Features? End-to-End Speech Emotion Recognition using a Deep Convolutional Recurrent Network," in *Proceedings 41st IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2016*, (Shanghai, P.R. China), pp. 5200–5204, IEEE, IEEE, March 2016. winner of the IEEE Spoken Language Processing Student Travel Grant 2016 (acceptance rate: 45 %, IF* 1.16 (2010))
- 266) G. Trigeorgis, M. A. Nicolaou, S. Zafeiriou, and B. Schuller, "Deep Canonical Time Warping," in *Proceedings IEEE Conference on Computer Vision and Pattern Recognition, CVPR 2016*, (Las Vegas, NV), pp. 5110–5118, IEEE, IEEE, June 2016. (acceptance rate: ~25 %, IF* 5.97 (2010))
- 267) M. Valstar, J. Gratch, B. Schuller, F. Ringeval, D. Lalanne, M. Torres Torres, S. Scherer, G. Stratou, R. Cowie, and M. Pantic, "AVEC 2016: Depression, Mood, and Emotion Recognition Workshop and Challenge," in *Proceedings of the 6th International Workshop on Audio/Visual Emotion Challenge, AVEC'16, co-located with the 24th ACM International Conference on Multimedia, MM 2016* (M. Valstar, J. Gratch, B. Schuller, F. Ringeval, R. Cowie, and M. Pantic, eds.), (Amsterdam, The Netherlands), pp. 3–10, ACM, ACM, October 2016
- 268) M. Valstar, C. Pelachaud, D. Heylen, A. Cafaro, S. Dermouche, A. Ghiculescu, E. André, T. Bauer, J. Wagner, L. Durieu, M. Aylett, P. Blaise, E. Coutinho, B. Schuller, Y. Zhang, M. Theune, and J. van Waterschoot, "Ask Alice; an Artificial Retrieval of Information Agent," in *Proceedings of the 18th ACM International Conference on Multimodal Interaction, ICMI (L.-P. Morency, C. Busso, and C. Pelachaud, eds.)*, (Tokyo, Japan), pp. 419–420, ACM, ACM, November 2016. (IF* 1.77 (2010))
- 269) M. Valstar, J. Gratch, B. Schuller, F. Ringeval, R. Cowie, and M. Pantic, "Summary for AVEC 2016: Depression, Mood, and Emotion Recognition Workshop and Challenge," in *Proceedings of the 24th ACM International Conference on Multimedia, MM 2016*, (Amsterdam, The Netherlands), pp. 1483–1484, ACM, ACM, October 2016. (acceptance rate short paper: 30 %, IF* 2.45 (2010))
- 270) B. Vlasenko, B. Schuller, and A. Wendemuth, "Tendencies Regarding the Effect of Emotional Intensity in Inter Corpus Phoneme-Level Speech Emotion Modelling," in *Proceedings 2016 IEEE International Workshop on Machine Learning for Signal Processing, MLSP*, (Salerno, Italy), pp. 1–6, IEEE, IEEE, September 2016
- 271) R. Wegener, C. Kohlschein, S. Jeschke, and B. Schuller, "Automatic Detection of Textual Triggers of Reader Emotion in Short Stories," in *Proceedings of the 6th International Workshop on Emotion and Sentiment Analysis (ESA 2016), satellite of the 10th Language Resources and Evaluation Conference (LREC 2016)* (J. F. Sánchez-Rada and B. Schuller, eds.), (Portoroz, Slovenia), pp. 80–84, ELRA, ELRA, May 2016. (acceptance rate: 74 %)
- 272) F. Weninger, 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 %)
- 273) F. Weninger, F. Ringeval, E. Marchi, and B. Schuller, "Discriminatively Trained Recurrent Neural Networks for Continuous Dimensional Emotion Recognition from Audio (Extended Abstract)," in *KI 2016: Advances in Artificial Intelligence 39th Annual German Conference on AI* (G. Friedrich, M. Helmert, and F. Wotawa, eds.), vol. LNCS Volume 9904/2016, (Klagenfurt, Austria), pp. 310–315, GfI / ÖGAI, Springer, September 2016. (acceptance rate: 45 %)
- 274) X. Xu, J. Deng, M. Gavryukova, Z. Zhang, L. Zhao, and B. Schuller, "Multiscale Kernel Locally Penalised Discriminant Analysis Exemplified by Emotion Recognition in Speech," in *Proceedings of the 18th ACM International Conference on Multimodal Interaction, ICMI (L.-P. Morency, C. Busso, and C. Pelachaud, eds.)*, (Tokyo, Japan), pp. 233–237, ACM, ACM, November 2016. (IF* 1.77 (2010))
- 275) Z. Zhang, F. Ringeval, B. Dong, E. Coutinho, E. Marchi, and B. Schuller, "Enhanced Semi-Supervised Learning for Multimodal Emotion Recognition," in *Proceedings 41st IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2016*, (Shanghai, P.R. China), pp. 5185–5189, IEEE, IEEE, March 2016. (acceptance rate: 45 %, IF* 1.16 (2010))
- 276) Z. Zhang, F. Ringeval, J. Han, J. Deng, E. Marchi, and B. Schuller, "Facing Realism in Spontaneous Emotion Recognition from Speech: Feature Enhancement by Autoencoder with LSTM Neural Networks," in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 3593–3597, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 277) Y. Zhang, F. Weninger, A. Batliner, F. Hönl, and B. Schuller, "Language Proficiency Assessment of English L2 Speakers Based on Joint Analysis of Prosody and Native Language," in *Proceedings of the 18th ACM International Conference on Multimodal Interaction, ICMI (L.-P. Morency, C. Busso, and C. Pelachaud, eds.)*, (Tokyo, Japan), pp. 274–278, ACM, ACM, November 2016. (IF* 1.77 (2010))
- 278) Y. Zhang, F. Weninger, Z. Ren, and B. Schuller, "Sincerity and Deception in Speech: Two Sides of the Same Coin? A Transfer- and Multi-Task Learning Perspective," in *Proceedings INTERSPEECH 2016, 17th Annual Conference of the International Speech Communication Association*, (San Francisco, CA), pp. 2041–2045, ISCA, ISCA, September 2016. (acceptance rate: 50 %)
- 279) Y. Zhang, Y. Zhou, J. Shen, and B. Schuller, "Semi-autonomous Data Enrichment Based on Cross-task Labelling of Missing Targets for Holistic Speech Analysis," in *Proceedings 41st IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2016*, (Shanghai, P.R. China), pp. 6090–6094, IEEE, IEEE, March 2016. (acceptance rate: 45 %, IF* 1.16 (2010))
- 280) Y. Zhang and B. Schuller, "Towards Human-Like Holistic Machine Perception of Speaker States and Traits," in *Proceedings of the Human-Like Computing Machine Intelligence Workshop, MI20-HLC*, (Windsor, U.K.), Springer, October 2016. 3 pages
- 281) J. Deng, X. Xu, Z. Zhang, S. Frühholz, D. Grandjean, and B. Schuller, "Fisher Kernels on Phase-based Features for Speech Emotion Recognition," in *Proceedings of the Seventh International Workshop on Spoken Dialogue Systems (IWSDS)*, (Saariselkä, Finland), Springer, January 2016. 6 pages
- 282) B. Schuller, B. Vlasenko, F. Eyben, M. Wöllmer, A. Stuhlsatz, A. Wendemuth, and G. Rigoll, "Cross-Corpus Acoustic Emotion Recognition: Variances and Strategies (Extended Abstract)," in

- Proc. 6th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2015)*, (Xi'an, P.R. China), pp. 470–476, AAAC, IEEE, September 2015. invited for the Special Session on Most Influential Articles in IEEE Transactions on Affective Computing
- 283) B. Schuller, E. Marchi, S. Baron-Cohen, A. Lassalle, H. O'Reilly, D. Pigat, P. Robinson, I. Davies, T. Baltrusaitis, M. Mahmoud, O. Golan, S. Friedenson, S. Tal, S. Newman, N. Meir, R. Shillo, A. Camurri, S. Piana, A. Staglianò, S. Bölte, D. Lundqvist, S. Berggren, A. Baranger, N. Sullings, M. Sezgin, N. Alyuz, A. Rynkiewicz, K. Ptaszek, and K. Ligmann, "Recent developments and results of ASC-Inclusion: An Integrated Internet-Based Environment for Social Inclusion of Children with Autism Spectrum Conditions," in *Proceedings of the 3rd International Workshop on Intelligent Digital Games for Empowerment and Inclusion (IDGEI 2015) as part of the 20th ACM International Conference on Intelligent User Interfaces, IUI 2015* (L. Paletta, B. Schuller, P. Robinson, and N. Sabouret, eds.), (Atlanta, GA), ACM, ACM, March 2015. 9 pages, best paper award (long talk acceptance rate: 36%)
- 284) B. Schuller, "Speech Analysis in the Big Data Era," in *Text, Speech, and Dialogue – Proceedings of the 18th International Conference on Text, Speech and Dialogue, TSD 2015*, vol. 9302 of *Lecture Notes in Computer Science (LNCS)*, pp. 3–11, Springer, September 2015. satellite event of INTERSPEECH 2015, invited contribution (acceptance rate: 50%)
- 285) B. Schuller, S. Steidl, A. Batliner, S. Hantke, F. Höning, J. R. Orozco-Arroyave, E. Nöth, Y. Zhang, and F. Wenginger, "The INTERSPEECH 2015 Computational Paralinguistics Challenge: Degree of Nativeness, Parkinson's & Eating Condition," in *Proceedings INTERSPEECH 2015, 16th Annual Conference of the International Speech Communication Association*, (Dresden, Germany), pp. 478–482, ISCA, ISCA, September 2015. (acceptance rate: 51%)
- 286) L. Azaïs, A. Payan, T. Sun, G. Vidal, T. Zhang, E. Coutinho, F. Eyben, and B. Schuller, "Does my Speech Rock? Automatic Assessment of Public Speaking Skills," in *Proceedings INTERSPEECH 2015, 16th Annual Conference of the International Speech Communication Association*, (Dresden, Germany), pp. 2519–2523, ISCA, ISCA, September 2015. (acceptance rate: 51%)
- 287) E. Coutinho, G. Trigeorgis, S. Zafeiriou, and B. Schuller, "Automatically Estimating Emotion in Music with Deep Long-Short Term Memory Recurrent Neural Networks," in *Proceedings of the MediaEval 2015 Multimedia Benchmark Workshop, satellite of Interspeech 2015* (M. Larson, B. Ionescu, M. Sjöberg, X. Anguera, J. Poignant, M. Riegler, M. Eskevich, C. Hauff, R. Sutcliffe, G. J. Jones, Y.-H. Yang, M. Soleymani, and S. Papadopoulos, eds.), vol. 1436, (Wurzen, Germany), CEUR, September 2015. 3 pages
- 288) J. Deng, Z. Zhang, F. Eyben, and B. Schuller, "Autoencoder-based Unsupervised Domain Adaptation for Speech Emotion Recognition," in *Proceedings 40th IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2015*, (Brisbane, Australia), pp. 1068–1072, IEEE, IEEE, April 2015. (IF* 1.16 (2010))
- 289) F. Eyben, B. Huber, E. Marchi, D. Schuller, and B. Schuller, "Robust Real-time Affect Analysis and Speaker Characterisation on Mobile Devices," in *Proc. 6th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2015)*, (Xi'an, P.R. China), pp. 778–780, AAAC, IEEE, September 2015. (acceptance rate: 55%)
- 290) S. Feraru, D. Schuller, and B. Schuller, "Cross-Language Acoustic Emotion Recognition: An Overview and Some Tendencies," in *Proc. 6th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2015)*, (Xi'an, P.R. China), pp. 125–131, AAAC, IEEE, September 2015. (acceptance rate oral: 28%)
- 291) K. Gentsch, E. Coutinho, F. Eyben, B. Schuller, and K. R. Scherer, "Classifying Emotion-Antecedent Appraisal in Brain Activity using Machine Learning Methods," in *Proceedings of the International Society for Research on Emotions Conference (ISRE 2015)*, (Geneva, Switzerland), ISRE, ISRE, July 2015. 1 page
- 292) S. Hantke, F. Eyben, T. Appel, and B. Schuller, "iHEARU-PLAY: Introducing a game for crowdsourced data collection for affective computing," in *Proc. 1st International Workshop on Automatic Sentiment Analysis in the Wild (WASA 2015) held in conjunction with the 6th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2015)*, (Xi'an, P.R. China), pp. 891–897, AAAC, IEEE, September 2015. (acceptance rate: 60%)
- 293) E. Marchi, F. Vesperini, F. Eyben, S. Squartini, and B. Schuller, "A Novel Approach for Automatic Acoustic Novelty Detection Using a Denoising Autoencoder with Bidirectional LSTM Neural Networks," in *Proceedings 40th IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2015*, (Brisbane, Australia), pp. 1996–2000, IEEE, IEEE, April 2015. (IF* 1.16 (2010))
- 294) E. Marchi, F. Vesperini, F. Wenginger, F. Eyben, S. Squartini, and B. Schuller, "Non-Linear Prediction with LSTM Recurrent Neural Networks for Acoustic Novelty Detection," in *Proceedings 2015 International Joint Conference on Neural Networks (IJCNN)*, (Killarney, Ireland), IEEE, IEEE, July 2015
- 295) E. Marchi, B. Schuller, S. Baron-Cohen, O. Golan, S. Bölte, P. Arora, and R. Häb-Umbach, "Typicality and Emotion in the Voice of Children with Autism Spectrum Condition: Evidence Across Three Languages," in *Proceedings INTERSPEECH 2015, 16th Annual Conference of the International Speech Communication Association*, (Dresden, Germany), pp. 115–119, ISCA, ISCA, September 2015. (acceptance rate: 51%)
- 296) E. Marchi, B. Schuller, S. Baron-Cohen, A. Lassalle, H. O'Reilly, D. Pigat, O. Golan, S. Friedenson, S. Tal, S. Bölte, S. Berggren, D. Lundqvist, and M. S. Elfström, "Voice Emotion Games: Language and Emotion in the Voice of Children with Autism Spectrum Condition," in *Proceedings of the 3rd International Workshop on Intelligent Digital Games for Empowerment and Inclusion (IDGEI 2015) as part of the 20th ACM International Conference on Intelligent User Interfaces, IUI 2015* (L. Paletta, B. Schuller, P. Robinson, and N. Sabouret, eds.), (Atlanta, GA), ACM, ACM, March 2015. 9 pages (long talk acceptance rate: 36%)
- 297) A. Metallinou, M. Wöllmer, A. Katsamanis, F. Eyben, B. Schuller, and S. Narayanan, "Context-Sensitive Learning for Enhanced Audiovisual Emotion Classification (Extended Abstract)," in *Proc. 6th biannual Conference on Affective Computing and Intelligent Interaction (ACII 2015)*, (Xi'an, P.R. China), pp. 463–469, AAAC, IEEE, September 2015. invited for the Special Session on Most Influential Articles in IEEE Transactions on Affective Computing
- 298) S. Newman, O. Golan, S. Baron-Cohen, S. Bölte, A. Rynkiewicz, A. Baranger, B. Schuller, P. Robinson, A. Camurri, M. Sezgin, N. Meir-Goren, S. Tal, S. Fridenson-Hayo, A. Lassalle, S. Berggren, N. Sullings, D. Pigat, K. Ptaszek, E. Marchi, S. Piana, and T. Baltrusaitis, "ASC-Inclusion – a Virtual World Teaching Children with ASC about Emotions," in *Proceedings 14th Annual International Meeting For Autism Research (IMFAR 2015)*, (Salt Lake City, UT), International Society for Autism Research (INSAR), INSAR, May 2015. 1 page
- 299) P. Pohl and B. Schuller, "Digital Analysis of Vocal Operants," in *Proceedings 2015 Meeting of the Experimental Analysis of Behaviour Group (EABG)*, (London, UK), EABG, EABG, March 2015. 1 page, to appear
- 300) F. Pokorny, F. Graf, F. Pernkopf, and B. Schuller, "Detection of Negative Emotions in Speech Signals Using Bags-of-Audio-Words," in *Proc. 1st International Workshop on Automatic Sentiment Analysis in the Wild (WASA 2015) held in conjunc-*

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- 581) M. Valstar, J. Gratch, B. Schuller, F. Ringeval, R. Cowie, and M. Pantic, eds., *Proceedings of the 6th International Workshop on Audio/Visual Emotion Challenge, AVEC'16, co-located with MM 2016*, (Amsterdam, The Netherlands), ACM, ACM, October 2016
- 582) B. Schuller, S. Steidl, A. Batliner, A. Vinciarelli, F. Burkhardt, and R. van Son, "Introduction to the Special Issue on Next Generation Computational Paralinguistics," *Computer Speech and Language, Special Issue on Next Generation Computational Paralinguistics*, vol. 29, pp. 98–99, January 2015. editorial (acceptance rate: 23 %, IF: 1.812, 5-year IF: 1.776 (2013))
- 583) B. Schuller, T. H. Falk, V. Parsa, and E. Nöth, "Introduction to the Special Issue on Atypical Speech & Voices: Corpora, Classification, Coaching & Conversion," *EURASIP Journal on Audio, Speech, and Music Processing, Special Issue on Atypical Speech & Voices: Corpora, Classification, Coaching & Conversion*, 2015. to appear (IF: 0.630 (2012))
- 584) K. Hartmann, I. Siegert, B. Schuller, L.-P. Morency, A. A. Salah, and R. Böck, eds., *Proceedings of the Workshop on Emotion Representations and Modelling for Companion Systems, ERM4CT 2015*, (Seattle, WA), ACM, ACM, November 2015. held in conjunction with the 17th ACM International Conference on Multimodal Interaction, ICMI 2015
- 585) K. Hartmann, I. Siegert, B. Schuller, L.-P. Morency, A. A. Salah, and R. Böck, "ERM4CT 2015 – Workshop on Emotion Representations and Modelling for Companion Systems," in *Proceedings of the Workshop on Emotion Representations and Modelling for Companion Systems, ERM4CT 2015* (K. Hartmann, I. Siegert, B. Schuller, L.-P. Morency, A. A. Salah, and R. Böck, eds.), (Seattle, WA), ACM, ACM, November 2015. 2 pages, held in conjunction with the 17th ACM International Conference on Multimodal Interaction, ICMI 2015
- 586) L. Paletta, B. W. Schuller, P. Robinson, and N. Sabouret, "IDGEI 2015: 3rd international workshop on intelligent digital games for empowerment and inclusion," in *Proceedings of the 20th ACM International Conference on Intelligent User Interfaces, IUI 2015*, (Atlanta, GA), pp. 450–452, ACM, ACM, March 2015
- 587) L. Paletta, B. Schuller, P. Robinson, and N. Sabouret, eds., *IDGEI 2015 – 3rd International Workshop on Intelligent Digital Games for Empowerment and Inclusion*, (Atlanta, GA), ACM, ACM, March 2015. held in conjunction with the 20th International Conference on Intelligent User Interfaces, IUI 2015
- 588) F. Ringeval, B. Schuller, M. Valstar, R. Cowie, and M. Pantic, eds., *Proceedings of the 5th International Workshop on Audio/Visual Emotion Challenge, AVEC'15, co-located with MM 2015*, (Brisbane, Australia), ACM, ACM, October 2015
- 589) F. Ringeval, B. Schuller, M. Valstar, R. Cowie, and M. Pantic, "AVEC 2015 Chairs' Welcome," in *Proceedings of the 5th International Workshop on Audio/Visual Emotion Challenge, AVEC'15, co-located with the 23rd ACM International Conference on Multimedia, MM 2015* (F. Ringeval, B. Schuller, M. Valstar, R. Cowie, and M. Pantic, eds.), (Brisbane, Australia), p. iii, ACM, ACM, October 2015
- 590) B. Schuller, S. Steidl, A. Batliner, F. Schiel, and J. Krajewski, "Introduction to the Special Issue on Broadening the View on Speaker Analysis," *Computer Speech and Language, Special Issue on Broadening the View on Speaker Analysis*, vol. 28, pp. 343–345, March 2014. editorial, (acceptance rate: 23 %, IF: 1.812, 5-year IF: 1.776 (2013))
- 591) B. Schuller, P. Buitelaar, L. Devillers, C. Pelachaud, T. Declerck, A. Batliner, P. Rosso, and S. Gaines, eds., *Proceedings of the 5th International Workshop on Emotion Social Signals, Sentiment & Linked Open Data (ES³LOD 2014)*, (Reykjavik, Iceland), ELRA, ELRA, May 2014. Satellite of the 9th Language Resources and Evaluation Conference (LREC 2014), (acceptance rate: 72 %)
- 592) E. Cambria, A. Hussain, B. Schuller, and N. Howard, "Guest Editorial Introduction Affective Neural Networks and Cognitive Learning Systems for Big Data Analysis," *Neural Networks, Special Issue on Affective Neural Networks and Cognitive Learning Systems for Big Data Analysis*, vol. 58, pp. 1–3, October 2014. editorial (IF: 2.182, 5-year IF: 2.477 (2012))
- 593) H. Gunes, B. Schuller, O. Celiktutan, E. Sariyanidi, and F. Eyben, eds., *Proceedings of the Personality Mapping Challenge & Workshop (MAPTRAITS 2014)*, (Istanbul, Turkey), ACM, ACM, November 2014. Satellite of the 16th ACM International Conference on Multimodal Interaction (ICMI 2014)
- 594) H. Gunes, B. Schuller, O. Celiktutan, E. Sariyanidi, and F. Eyben, "MAPTRAITS'14 Foreword," in *Proceedings of the Personality Mapping Challenge & Workshop (MAPTRAITS 2014), Satellite of the 16th ACM International Conference on Multimodal Interaction (ICMI 2014)*, (Istanbul, Turkey), p. iii, ACM, ACM, November 2014
- 595) K. Hartmann, R. Böck, B. Schuller, and K. R. Scherer, eds., *Proceedings of the 2nd Workshop on Emotion representation and modelling in Human-Computer-Interaction-Systems, ERM4HCI 2014*, (Istanbul, Turkey), ACM, ACM, November 2013. held in conjunction with the 16th ACM International Conference on Multimodal Interaction, ICMI 2014
- 596) K. Hartmann, K. R. Scherer, B. Schuller, and R. Böck, "Welcome to the ERM4HCI 2014!," in *Proceedings of the 2nd Workshop on Emotion representation and modelling in Human-Computer-Interaction-Systems, ERM4HCI 2014* (K. Hartmann, R. Böck, B. Schuller, and K. Scherer, eds.), (Istanbul, Turkey), p. iii, ACM, ACM, November 2014. held in conjunction with the 16th ACM International Conference on Multimodal Interaction, ICMI 2014
- 597) L. Paletta, B. W. Schuller, P. Robinson, and N. Sabouret, "IDGEI 2014: 2nd international workshop on intelligent digital games for empowerment and inclusion," in *Proceedings of the companion publication of the 19th international conference on Intelligent User Interfaces, IUI Companion 2014*, (Haifa, Israel), pp. 49–50, ACM, ACM, February 2014
- 598) L. Paletta, B. Schuller, P. Robinson, and N. Sabouret, eds., *IDGEI 2014 – 2nd International Workshop on Intelligent Digital Games for Empowerment and Inclusion*, (Haifa, Israel), ACM, ACM, February 2014. held in conjunction with the 19th International Conference on Intelligent User Interfaces, IUI

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- 599) L. Paletta, B. Schuller, P. Robinson, and N. Sabouret, eds., *Proceedings of the 2nd International Workshop on Digital Games for Empowerment and Inclusion, IDGEI 2014*, (Haifa, Israel), ACM, ACM, February 2014. held in conjunction with the 19th International Conference on Intelligent User Interfaces, IUI 2014
- 600) M. Valstar, B. Schuller, J. Krajewski, R. Cowie, and M. Pantic, "AVEC 2014: the 4th International Audio/Visual Emotion Challenge and Workshop," in *Proceedings of the 22nd ACM International Conference on Multimedia, MM 2014*, (Orlando, FL), pp. 1243–1244, ACM, ACM, November 2014
- 601) A. A. Salah, J. Cohn, B. Schuller, O. Aran, L.-P. Morency, and P. R. Cohen, "ICMI 2014 Chairs' Welcome," in *Proceedings of the 16th ACM International Conference on Multimodal Interaction, ICMI*, (Istanbul, Turkey), pp. iii–v, ACM, ACM, November 2014. editorial, (acceptance rate: 40 %, IF* 1.77 (2010))
- 602) B. Schuller, L. Paletta, and N. Sabouret, "Intelligent Digital Games for Empowerment and Inclusion – An Introduction," in *Proceedings 1st International Workshop on Intelligent Digital Games for Empowerment and Inclusion (IDGEI 2013) held in conjunction with the 8th Foundations of Digital Games 2013 (FDG)* (B. Schuller, L. Paletta, and N. Sabouret, eds.), (Chania, Greece), ACM, SASDG, May 2013. 2 pages
- 603) B. Schuller, S. Steidl, and A. Batliner, "Introduction to the Special Issue on Paralinguistics in Naturalistic Speech and Language," *Computer Speech and Language, Special Issue on Paralinguistics in Naturalistic Speech and Language*, vol. 27, pp. 1–3, January 2013. editorial (acceptance rate: 36 %, IF: 1.812, 5-year IF: 1.776 (2013))
- 604) B. Schuller, M. Valstar, R. Cowie, J. Krajewski, and M. Pantic, eds., *Proceedings of the 3rd ACM international workshop on Audio/visual emotion challenge*, (Barcelona, Spain), ACM, ACM, October 2013. held in conjunction with the 21st ACM international conference on Multimedia, ACM MM 2013
- 605) E. Cambria, B. Schuller, B. Liu, H. Wang, and C. Havasi, "Guest Editor's Introduction: Knowledge-based Approaches to Concept-Level Sentiment Analysis," *IEEE Intelligent Systems Magazine, Special Issue on Statistical Approaches to Concept-Level Sentiment Analysis*, vol. 28, pp. 12–14, March/April 2013. (IF: 2.570, 5-year IF: 2.632 (2010))
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- 607) J. Epps, F. Chen, S. Oviatt, K. Mase, A. Sears, K. Jokinen, and B. Schuller, "ICMI 2013 Chairs' Welcome," in *Proceedings of the 15th ACM International Conference on Multimodal Interaction, ICMI*, (Sydney, Australia), pp. 3–4, ACM, ACM, December 2013. editorial, (acceptance rate: 37 %, IF* 1.77 (2010))
- 608) H. Gunes and B. Schuller, "Introduction to the Special Issue on Affect Analysis in Continuous Input," *Image and Vision Computing, Special Issue on Affect Analysis in Continuous Input*, vol. 31, pp. 118–119, February 2013. (IF: 1.723, 5-Year IF: 1.743 (2011))
- 609) K. Hartmann, R. Böck, C. Becker-Asano, J. Gratch, B. Schuller, and K. R. Scherer, eds., *Proceedings of the Workshop on Emotion representation and modelling in Human-Computer-Interaction-Systems, ERM4HCI 2013*, (Sydney, Australia), ACM, ACM, December 2013. held in conjunction with the 15th ACM International Conference on Multimodal Interaction, ICMI 2013
- 610) K. Hartmann, R. Böck, C. Becker-Asano, J. Gratch, B. Schuller, and K. R. Scherer, "ERM4HCI 2013 -? The 1st Workshop on Emotion Representation and Modelling in Human-Computer-Interaction-Systems," in *Proceedings of the Workshop on Emotion representation and modelling in Human-Computer-Interaction-Systems, ERM4HCI 2013* (K. Hartmann, R. Böck, C. Becker-Asano, J. Gratch, B. Schuller, and K. R. Scherer, eds.), (Sydney, Australia), ACM, ACM, December 2013. held in conjunction with the 15th ACM International Conference on Multimodal Interaction, ICMI 2013
- 611) M. Müller, S. S. Narayanan, and B. Schuller, eds., *Report from Dagstuhl Seminar 13451 – Computational Audio Analysis*, vol. 3 of *Dagstuhl Reports*, (Dagstuhl, Germany), Schloss Dagstuhl, Leibniz-Zentrum fuer Informatik, Dagstuhl Publishing, November 2013. 28 pages
- 612) L. Paletta, L. Itti, B. Schuller, and F. Fang, eds., *Proceedings of the 6th International Symposium on Attention in Cognitive Systems 2013, ISACS 2013*, LNAI, (Beijing, P.R. China), arxiv.org, Springer, August 2013. held in conjunction with the 23rd International Joint Conference on Artificial Intelligence, IJCAI 2013
- 613) B. Schuller, M. Valstar, R. Cowie, and M. Pantic, "AVEC 2012: the continuous audio/visual emotion challenge – an introduction," in *Proceedings of the 14th ACM International Conference on Multimodal Interaction, ICMI* (L.-P. Morency, D. Bohus, H. K. Aghajan, J. Cassell, A. Nijholt, and J. Epps, eds.), (Santa Monica, CA), pp. 361–362, ACM, ACM, October 2012. (acceptance rate: 36 %, IF* 1.77 (2010))
- 614) B. Schuller, E. Douglas-Cowie, and A. Batliner, "Guest Editorial: Special Section on Naturalistic Affect Resources for System Building and Evaluation," *IEEE Transactions on Affective Computing, Special Issue on Naturalistic Affect Resources for System Building and Evaluation*, vol. 3, pp. 3–4, January–March 2012. (IF: 3.466, 5-year IF: 3.871 (2013))
- 615) L. Devillers, B. Schuller, A. Batliner, P. Rosso, E. Douglas-Cowie, R. Cowie, and C. Pelachaud, eds., *Proceedings of the 4th International Workshop on EMOTION SENTIMENT & SOCIAL SIGNALS 2012 (ES? 2012) – Corpora for Research on Emotion, Sentiment & Social Signals*, (Istanbul, Turkey), ELRA, ELRA, May 2012. held in conjunction with LREC 2012
- 616) J. Epps, R. Cowie, S. Narayanan, B. Schuller, and J. Tao, "Editorial Emotion and Mental State Recognition from Speech," *EURASIP Journal on Advances in Signal Processing, Special Issue on Emotion and Mental State Recognition from Speech*, vol. 2012, no. 15, 2012. 2 pages (acceptance rate: 38 %, IF: 1.012, 5-Year IF: 1.136 (2010))
- 617) S. Squartini, B. Schuller, and A. Hussain, "Cognitive and Emotional Information Processing for Human-Machine Interaction," *Cognitive Computation, Special Issue on Cognitive and Emotional Information Processing for Human-Machine Interaction*, vol. 4, pp. 383–385, August 2012. (IF: 1.000 (2011))
- 618) B. Schuller, S. Steidl, and A. Batliner, "Introduction to the Special Issue on Sensing Emotion and Affect – Facing Realism in Speech Processing," *Speech Communication, Special Issue Sensing Emotion and Affect – Facing Realism in Speech Processing*, vol. 53, pp. 1059–1061, November/December 2011. (acceptance rate: 38 %, IF: 1.267, 5-year IF: 1.526 (2011))
- 619) B. Schuller, M. Valstar, R. Cowie, and M. Pantic, eds., *Proceedings of the First International Audio/Visual Emotion Challenge and Workshop, AVEC 2011*, vol. 6975, Part II of *Lecture Notes on Computer Science (LNCS)*, (Memphis, TN), HUMAINE Association, Springer, October 2011. held in conjunction with the International HUMAINE Association Conference on Affective Computing and Intelligent Interaction 2011, ACII 2011
- 620) L. Devillers, B. Schuller, R. Cowie, E. Douglas-Cowie, and A. Batliner, eds., *Proceedings of the 3rd International Workshop on EMOTION: Corpora for Research on Emotion and Affect*, (Valletta, Malta), ELRA, ELRA, May 2010. Satellite of 7th International Conference on Language Resources and Evaluation (LREC 2010) (acceptance rate: 69 %, IF* 1.37 (2010))

Abstracts in Journals (6):

- 621) F. B. Pokorny, B. W. Schuller, I. Tomantschger, D. Zhang, C. Einspieler, and P. B. Marschik, "Intelligent pre-linguistic vocalisation analysis: a promising novel approach for the earlier identification of Rett syndrome," *Wiener Medizinische Wochenschrift*, vol. 166, pp. 382–383, July 2016. Rett Syndrome – RTT50.1 (IF: 0.56 (2015))
- 622) B. Schuller, "Approaching Cross-Audio Computer Audition," *Dagstuhl Reports*, vol. 3, pp. 22–22, November 2013
- 623) F. Metze, X. Anguera, S. Ewert, J. Gemmeke, D. Kolossa, E. M. Provost, B. Schuller, and J. Serrà, "Learning of Units and Knowledge Representation," *Dagstuhl Reports*, vol. 3, pp. 13–13, November 2013
- 624) B. Schuller, S. Fridenzon, S. Tal, E. Marchi, A. Batliner, and O. Golan, "Learning the Acoustics of Autism-Spectrum Emotional Expressions – A Children's Game?," *Neuropsychiatrie de l'Enfance et de l'Adolescence*, vol. 60, p. 32, July 2012. invited contribution
- 625) B. Schuller, "Next Gen Music Analysis: Some Inspirations from Speech," *Dagstuhl Reports*, vol. 1, no. 1, pp. 93–93, 2011
- 626) S. Ewert, M. Goto, P. Grosche, F. Kaiser, K. Yoshii, F. Kurth, M. Mauch, M. Müller, G. Peeters, and B. Schuller, "Signal Models for and Fusion of Multimodal Information," *Dagstuhl Reports*, vol. 1, no. 1, pp. 97–97, 2011

Abstracts in Conference/Challenge Proceedings (25)

- 627) 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
- 628) 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, wspierajace 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, to appear
- 629) 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
- 630) 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
- 631) 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
- 632) 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, to appear
- 633) 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.), (Rzeszow, Poland), pp. 65–67, SOLIS RADIUS, September 2016
- 634) 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.), (Rzeszow, Poland), pp. 62–64, SOLIS RADIUS, September 2016
- 635) 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
- 636) 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
- 637) 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
- 638) O. Rudovic, V. Evers, M. Pantic, B. Schuller, and S. Petrovic, "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
- 639) 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
- 640) 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
- 641) 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
- 642) 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
- 643) 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
- 644) 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

- 645) 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
- 646) 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
- 647) 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 %)
- 648) 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 %)
- 649) 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 %)
- 650) 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 %)
- 651) S. Böck, F. Eyben, and B. Schuller, "Tempo 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. 3 pages (acceptance rate: 61 %)
- Invited Papers (30):*
- 652) 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
- 653) 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
- 654) 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
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