

# Publications by Björn W. Schuller

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Current h-index: **56** (source: Google Scholar)

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Citations are only provided for papers with citation count  $\geq 100$ .

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

### Books Edited (2):

- 7) Sharon Oviatt, Björn Schuller, Phil Cohen, Daniel Sonntag, Gerasimos Potamianos, and Antonio Krüger, editors. *Handbook of Multimodal-Multisensor Interfaces (3 volumes)*. ACM Books, Morgan & Claypool, 2017. to appear
- 8) Sidney D'Mello, Art Graesser, Björn Schuller, and Jean-Claude Martin, editors. *Proceedings of the 4th International HUMAINE Association Conference on Affective Computing and Intelligent Interaction 2011, ACII 2011*, volume 6974/6975, Part I / Part II of *Lecture Notes on Computer Science (LNCS)*, Memphis, TN, October 2011. HUMAINE Association, Springer

### Contributions to Books (42):

- 9) Björn Schuller, Aaron Elkins, and Klaus Scherer. Computational Analysis of Vocal Expression of Affect: Trends and Challenges. In Judee Burgoon, Nadia Magnenat-Thalmann, Maja Pantic, and Alessandro Vinciarelli, editors, *Social Signal Processing*, chapter 6, pages 56–68. Cambridge University Press, 2017
- 10) Björn Schuller. Multimodal User State & Trait Recognition: An Overview. In Sharon Oviatt, Björn Schuller, Phil Cohen, Daniel Sonntag, Gerasimos Potamianos, and Antonio Krüger, editors, *Handbook of Multimodal-Multisensor Interfaces*. ACM Books, Morgan & Claypool, 2017. 30 pages, to appear
- 11) Björn Schuller, Samy Bengio, and Louis-Philippe Morency. Perspectives on Predictive Power of Multimodal Deep Learning: Surprises and Future Directions. In Sharon Oviatt, Björn Schuller, Phil Cohen, Daniel Sonntag, Gerasimos Potamianos, and Antonio Krüger, editors, *Handbook of Multimodal-Multisensor Interfaces*. ACM Books, Morgan & Claypool, 2017. 15 pages, to appear
- 12) Björn Schuller, Marc Ernst, Arun Ross, and Fabio Ramos. Perspectives on Strategic Fusion: What Can Neuroscience, Engineering, and Applications Experience Teach Us about Optimizing Multimodal Multi-sensor System Reliability? In Sharon Oviatt, Björn Schuller, Phil Cohen, Daniel Sonntag, Gerasimos Potamianos, and Antonio Krüger, editors, *Handbook of Multimodal-Multisensor Interfaces*. ACM Books, Morgan & Claypool, 2017. 15 pages, to appear
- 13) Samy Bengio, Li Deng, Louis-Philippe Morency, and Björn Schuller. Multidisciplinary Challenge Topic: Perspectives on Predictive Power of Multimodal Deep Learning: Surprises and Future Directions. In Sharon Oviatt, Björn Schuller, Phil Cohen, Daniel Sonntag, Gerasimos Potamianos, and Antonio Krüger, editors, *Handbook of Multimodal-Multisensor Interfaces*. ACM Books, Morgan & Claypool, 2017. 30 pages, to appear
- 14) Marc Ernst, Fabio Ramos, Arun Ross, and Björn 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 Sharon Oviatt, Björn Schuller, Phil Cohen, Daniel Sonntag, Gerasimos Potamianos, and Antonio Krüger, editors, *Handbook of Multimodal-Multisensor Interfaces*. ACM Books, Morgan & Claypool, 2017. to appear
- 15) Hatice Gunes and Björn Schuller. Automatic Analysis of Aesthetics: Human Beauty, Attractiveness, and Likability. In Judee Burgoon, Nadia Magnenat-Thalmann, Maja Pantic, and Alessandro Vinciarelli, editors, *Social Signal Processing*, chapter 14, pages 183–201. Cambridge University Press, 2017
- 16) Hatice Gunes and Björn Schuller. Automatic Analysis of Social Emotions. In Judee Burgoon, Nadia Magnenat-Thalmann, Maja Pantic, and Alessandro Vinciarelli, editors, *Social Signal Processing*, chapter 16, pages 213–224. Cambridge University Press, 2017
- 17) Simone Hantke, Shahin Amiriparian, Maximilian Schmitt, Kun Qian, Jian Guo, Satoshi Matsuoka, and Björn Schuller. Big Data Multimedia Mining: Equipped for Victory facing Volume, Velocity, Variety, Veracity, and Value. In Stefanos Vrochidis, Benoit Huet, Ed Chang, and Ioannis Kompatsiaris, editors, *Big Data Analytics for Large-Scale Multimedia Search*. Wiley, 2017. to appear
- 18) Björn Schuller. Acquisition of affect. In Marco Tkalcic, Berardina De Carolis, Marco de Gemmis, Ante Odić, and Andrej Kosir, editors, *Emotions and Personality in Personalized Services*, HumanComputer Interaction Series, pages 57–80. Springer, 1st edition, 2016
- 19) Felix Burkhardt, Catherine Pelachaud, Björn Schuller, and Enrico Zovato. Emotion Markup Language. In Deborah Dahl, editor, *Multimodal Interaction with W3C Standards: Towards Natural User Interfaces to Everything*, pages 65–80. Springer, Berlin/Heidelberg, 2017
- 20) Gil Keren, Amr El-Desoky Mousa, Olivier Pietquin, Stefanos Zafeiriou, and Björn Schuller. Deep Learning for Multisensorial and Multimodal Interaction. In Sharon Oviatt, Björn Schuller, Phil Cohen, Daniel Sonntag, Gerasimos Potamianos, and Antonio Krüger, editors, *Handbook of Multimodal-Multisensor Interfaces*. ACM Books, Morgan & Claypool, 2017. 30 pages, to appear
- 21) Maximilian Schmitt and Björn Schuller. Machine-based decoding of paralinguistic vocal features. In Sascha Frühholz and Pascal Belin, editors, *The Oxford Handbook of Voice Perception*, chapter 40. Oxford University Press, 2015. invited contribution, to appear
- 22) Björn Schuller. Deep Learning our Everyday Emotions – A Short Overview. In Simone Bassis, Anna Esposito, and Francesco Carlo Morabito, editors, *Advances in Neural Networks: Computational and Theoretical Issues Emotional Expressions and Daily Cognitive Functions*, volume 37 of *Smart Innovation Systems and Technologies*, pages 339–346. Springer, Berlin Heidelberg, 2015. invited contribution
- 23) Björn Schuller and Felix Wengler. Human Affect Recognition

- Audio-Based Methods. In John G. Webster, editor, *Wiley Encyclopedia of Electrical and Electronics Engineering*, pages 1–13. John Wiley & Sons, New York, 2015. invited contribution
- 24) Björn Schuller. Multimodal Affect Databases - Collection, Challenges & Chances. In Rafael A. Calvo, Sidney D’Mello, Jonathan Gratch, and Arvid Kappas, editors, *Handbook of Affective Computing*, Oxford Library of Psychology, chapter 23, pages 323–333. Oxford University Press, 2015. invited contribution
  - 25) Björn Schuller. Emotion Modeling via Speech Content and Prosody – in Computer Games and Elsewhere. In Georgios Yannakakis and Kostas Karpozis, editors, *Emotion in Games – Theory and Practice*, volume 4 of *Socio-Affective Computing*, chapter 5, pages 85–102. Springer, 2015. invited contribution
  - 26) Anton Batliner, Stefan Steidl, Florian Eyben, and Björn Schuller. On Laughter and Speech Laugh, Based on Observations of Child-Robot Interaction. In Jürgen Trouvain and Nick Campbell, editors, *Phonetics of Laughing*. universaar – Saarland University Press, Saarbrücken, Germany, 2015. 29 pages, to appear
  - 27) Raymond Brückner and Björn Schuller. Being at Odds? – Deep and Hierarchical Neural Networks for Classification and Regression of Conflict in Speech. In Francesca D’Errico, Isabella Poggi, Alessandro Vinciarelli, and Laura Vincze, editors, *Conflict and Multimodal Communication – Social research and machine intelligence*, Computational Social Sciences, pages 403–429. Springer, Berlin/Heidelberg, 2015. invited contribution
  - 28) Ginevra Castellano, Hatice Gunes, Christopher Peters, and Björn Schuller. Multimodal Affect Detection for Naturalistic Human-Computer and Human-Robot Interactions. In Rafael A. Calvo, Sidney D’Mello, Jonathan Gratch, and Arvid Kappas, editors, *Handbook of Affective Computing*, Oxford Library of Psychology, chapter 17, pages 246–260. Oxford University Press, 2015. invited contribution
  - 29) Erik Marchi, Yue Zhang, Florian Eyben, Fabien Ringeval, and Björn Schuller. Autism and Speech, Language, and Emotion - a Survey. In Hemant Patil and Manisha Kulshreshtha, editors, *Evaluating the Role of Speech Technology in Medical Case Management*. De Gruyter, Berlin, 2015. invited contribution, to appear
  - 30) Felix Weninger, Martin Wöllmer, and Björn Schuller. Emotion Recognition in Naturalistic Speech and Language - A Survey. In Amit Konar and Aruna Chakraborty, editors, *Emotion Recognition: A Pattern Analysis Approach*, chapter 10, pages 237–267. Wiley, 1st edition, December 2015
  - 31) Erik Marchi, Fabien Ringeval, and Björn Schuller. Voice-enabled assistive robots for handling autism spectrum conditions: an examination of the role of prosody. In Amy Neustein, editor, *Speech and Automata in Health Care (Speech Technology and Text Mining in Medicine and Healthcare)*, pages 207–236. De Gruyter, Boston/Berlin/Munich, 2014. invited contribution
  - 32) Björn Schuller. Prosody and Phonemes: On the Influence of Speaking Style. In Sylvie Hancil and Daniel Hirst, editors, *Prosody and Iconicity*, chapter 13, pages 233–250. Benjamins, May 2013
  - 33) Björn Schuller and Felix Weninger. Ten Recent Trends in Computational Paralinguistics. In Anna Esposito, Alessandro Vinciarelli, Rüdiger Hoffmann, and Vincent C. Müller, editors, *4th COST 2102 International Training School on Cognitive Behavioural Systems*, volume 7403/2012 of *Lecture Notes on Computer Science (LNCS)* 7403, pages 35–49. Springer, Berlin Heidelberg, 2012
  - 34) Rudy Rotili, Emanuele Principi, Martin Wöllmer, Stefano Squartini, and Björn Schuller. Conversational Speech Recognition In Non-Stationary Reverberated Environments. In Anna Esposito, Alessandro Vinciarelli, Rüdiger Hoffmann, and Vincent C. Müller, editors, *4th COST 2102 International Training School on Cognitive Behavioural Systems*, volume 7403/2012 of *Lecture Notes on Computer Science (LNCS)*, pages 50–59. Springer, Berlin Heidelberg, 2012
  - 35) Rudy Rotili, Emanuele Principi, Stefano Squartini, and Björn 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)*, volume 6839 of *Lecture Notes on Computer Science (LNCS)*, pages 379–386. Springer, 2012
  - 36) Björn Schuller. Voice and Speech Analysis in Search of States and Traits. In Albert Ali Salah and Theo Gevers, editors, *Computer Analysis of Human Behavior*, Advances in Pattern Recognition, chapter 9, pages 227–253. Springer, 2011
  - 37) Björn Schuller and Tobias Knaup. Learning and Knowledge-based Sentiment Analysis in Movie Review Key Excerpts. In Anna Esposito, Antonietta M. Esposito, Raffaele Martone, Vincent Müller, and Gaetano Scarpetta, editors, *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*, volume 6456/2010 of *Lecture Notes on Computer Science (LNCS)*, pages 448–472. Springer, Heidelberg, 1st edition, 2011
  - 38) Björn Schuller, Martin Wöllmer, Florian Eyben, and Gerhard Rigoll. Retrieval of Paralinguistic Information in Broadcasts. In Mark T. Maybury, editor, *Multimedia Information Extraction: Advances in video, audio, and imagery extraction for search, data mining, surveillance, and authoring*, chapter 17, pages 273–288. Wiley, IEEE Computer Society Press, 2011
  - 39) Dejan Arsić and Björn Schuller. Real Time Person Tracking and Behavior Interpretation in Multi Camera Scenarios Applying Homography and Coupled HMMs. In Anna Esposito, Alessandro Vinciarelli, Klára Vicsi, Catherine Pelachaud, and Anton Nijholt, editors, *Analysis of Verbal and Nonverbal Communication and Enactment: The Processing Issues, COST 2102 International Conference, Budapest, Hungary, September 7-10, 2010, Revised Selected Papers*, volume 6800/2011 of *Lecture Notes on Computer Science (LNCS)*, pages 1–18. Springer, Heidelberg, 2011
  - 40) Björn Schuller, Florian Dibiasi, Florian Eyben, and Gerhard Rigoll. Music Thumbnailing Incorporating Harmony- and Rhythm Structure. In Marcin Detyniecki, Ulrich Leiner, and Andreas Nürnberger, editors, *Adaptive Multimedia Retrieval: 6th International Workshop, AMR 2008, Berlin, Germany, June 26-27, 2008. Revised Selected Papers*, volume 5811/2010 of *Lecture Notes in Computer Science (LNCS)*, pages 78–88. Springer, Berlin/Heidelberg, 2010
  - 41) Anton Batliner, Björn Schuller, Dino Seppi, Stefan Steidl, Laurence Devillers, Laurence Vidrascu, Thurid Vogt, Vered Aharonson, and Noam Amir. The Automatic Recognition of Emotions in Speech. In Roddy Cowie, Paolo Petta, and Catherine Pelachaud, editors, *Emotion-Oriented Systems: The HUMAINE Handbook*, Cognitive Technologies, pages 71–99. Springer, 1st edition, 2010
  - 42) Martin Wöllmer, Florian Eyben, Alex Graves, Björn Schuller, and Gerhard Rigoll. Improving Keyword Spotting with a Tandem BLSTM-DBN Architecture. In Jordi Sole-Casals and Vladimir Zaiats, editors, *Advances in Non-Linear Speech Processing: International Conference on Nonlinear Speech Processing, NOLISP 2009, Vic, Spain, June 25-27, 2009, Revised Selected Papers*, volume 5933/2010 of *Lecture Notes on Computer Science (LNCS)*, pages 68–75. Springer, 2010
  - 43) Björn Schuller, Martin Wöllmer, Florian Eyben, and Gerhard Rigoll. Spectral or Voice Quality? Feature Type Relevance for the Discrimination of Emotion Pairs. In Sylvie Hancil, editor, *The Role of Prosody in Affective Speech*, volume 97 of *Linguistic Insights, Studies in Language and Communication*, pages 285–307. Peter Lang Publishing Group, 2009
  - 44) Björn Schuller, Florian Eyben, and Gerhard Rigoll. Static and

- Dynamic Modelling for the Recognition of Non-Verbal Vocalisations in Conversational Speech. In E. André, L. Dybkjaer, H. Neumann, R. Pieraccini, and M. Weber, editors, *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*, volume 5078/2008 of *Lecture Notes on Computer Science (LNCS)*, pages 99–110. Springer, Berlin/Heidelberg, 2008
- 45) Björn Schuller, Martin Wöllmer, Tobias Moosmayr, Günther Ruske, and Gerhard Rigoll. Switching Linear Dynamic Models for Noise Robust In-Car Speech Recognition. In Gerhard Rigoll, editor, *Pattern Recognition: 30th DAGM Symposium Munich, Germany, June 10-13, 2008 Proceedings*, volume 5096 of *Lecture Notes on Computer Science (LNCS)*, pages 244–253. Springer, Berlin/Heidelberg, 2008. (acceptance rate: 39 %, IF\* 1.13 (2010))
  - 46) Bogdan Vlasenko, Björn Schuller, Andreas Wendemuth, and Gerhard Rigoll. On the Influence of Phonetic Content Variation for Acoustic Emotion Recognition. In E. André, L. Dybkjaer, H. Neumann, R. Pieraccini, and M. Weber, editors, *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*, volume 5078/2008 of *Lecture Notes on Computer Science (LNCS)*, pages 217–220. Springer, Berlin/Heidelberg, 2008
  - 47) Michael Grimm, Kristian Kroschel, Helen Harris, Clifford Nass, Björn Schuller, Gerhard Rigoll, and Tobias Moosmayr. On the Necessity and Feasibility of Detecting a Driver’s Emotional State While Driving. In Ana Paiva, Rosalind W. Picard, and Rui Prada, editors, *Affective Computing and Intelligent Interaction: Second International Conference, ACII 2007, Lisbon, Portugal, September 12-14, 2007, Proceedings*, volume 4738/2007 of *Lecture Notes on Computer Science (LNCS)*, pages 126–138. Springer, Berlin/Heidelberg, 2007
  - 48) Bogdan Vlasenko, Björn Schuller, Andreas Wendemuth, and Gerhard Rigoll. Frame vs. Turn-Level: Emotion Recognition from Speech Considering Static and Dynamic Processing. In Ana Paiva, Rosalind W. Picard, and Rui Prada, editors, *Affective Computing and Intelligent Interaction: Second International Conference, ACII 2007, Lisbon, Portugal, September 12-14, 2007, Proceedings*, volume 4738/2007 of *Lecture Notes on Computer Science (LNCS)*, pages 139–147. Springer, Berlin/Heidelberg, 2007
  - 49) Marc Schröder, Laurence Devillers, Kostas Karpouzis, Jean-Claude Martin, Catherine Pelachaud, Christian Peter, Hannes Pirker, Björn Schuller, Jianhua Tao, and Ian Wilson. What should a generic emotion markup language be able to represent? In Ana Paiva, Rosalind W. Picard, and Rui Prada, editors, *Affective Computing and Intelligent Interaction: Second International Conference, ACII 2007, Lisbon, Portugal, September 12-14, 2007, Proceedings*, volume 4738/2007 of *Lecture Notes on Computer Science (LNCS)*, pages 440–451. Springer, Berlin/Heidelberg, 2007
  - 50) Björn Schuller, Markus Ablameier, Ronald Müller, Stefan Reifinger, Tony Poitschke, and Gerhard Rigoll. Speech Communication and Multimodal Interfaces. In Karl-Friedrich Kraiss, editor, *Advanced Man Machine Interaction*, Signals and Communication Technology, chapter 4, pages 141–190. Springer, Berlin/Heidelberg, 2006
- B) REFEREED JOURNAL PAPERS (94)
- 51) Björn Schuller. Can Affective Computing Save Lives? Meet Mobile Health. *IEEE Computer Magazine*, 50:40, 2017. (IF: 1.438 (2013))
  - 52) Jun Deng, Xinzhou Xu, Zixing Zhang, Sascha Frühholz, and Björn Schuller. Universum Autoencoder-based Domain Adaptation for Speech Emotion Recognition. *IEEE Signal Processing Letters*, 24, 2017. 5 pages, to appear (acceptance rate: 17 %, IF: 1.674, 5-year IF: 1.595 (2012))
  - 53) Jian Guo, Kun Qian, Gongxuan Zhang, Huijie Xu, and Björn Schuller. Accelerating biomedical signal processing using GPU: A case study of snore sounds feature extraction. *Interdisciplinary Sciences – Computational Life Sciences*, 9, 2017. 11 pages, to appear (IF: 0.853 (2015))
  - 54) Christoph Janott, Björn Schuller, and Clemens Heiser. Akustische Informationen von Schnarchgeräuschen. *HNO, Leitthemenheft “Schlafmedizin”*, 22(2):1–10, February 2017. (IF: 0.852 (2015))
  - 55) Erik Marchi, Fabio Vesperini, Stefano Squartini, and Björn Schuller. Deep Recurrent Neural Network-based Autoencoders for Acoustic Novelty Detection. *Computational Intelligence and Neuroscience*, 2017, 2017. 14 pages (IF: 0.430 (2015))
  - 56) Peter B. Marschik, Florian B. Pokorny, Robert Peharz, Dajie Zhang, Jonathan O’Muircheartaigh, Herbert Roeyers, Sven Bölte, Alicia J. Spittle, Berndt Urlsberger, Björn Schuller, Luise Poustka, Sally Ozonoff, Franz Pernkopf, Thomas Pock, Kristiina Tammimies, Christian Enzinger, Magdalena Kriebler, Iris Tomantschger, Katrin D. Bartl-Pokorny, Jeff Sigafoos, Laura Roche, Gianluca Esposito, Markus Gugatschka, Karin Nielsen-Saines, Christa Einspieler, Walter 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*, 17(43), 2017. 15 pages (IF: 2.961, 5-year IF: 3.064 (2015))
  - 57) Kun Qian, Zixing Zhang, Alice Baird, and Björn Schuller. Active Learning for Bird Sounds Classification. *Acta Acustica united with Acustica*, 103:361–364, April 2017. (IF: 0.897 (2015))
  - 58) Ognjen Rudovic, Jaeryoung Lee, Lea Mascarell-Maricic, Björn W. Schuller, and Rosalind Picard. Measuring Engagement in Autism Therapy with Social Robots: a Cross-cultural Study. *Frontiers in Robotics and AI, section Humanoid Robotics, Special Issue on Affective and Social Signals for HRI*, 2017, to appear
  - 59) George Trigeorgis, Konstantinos Bousmalis, Stefanos Zafeiriou, and Björn Schuller. A deep matrix factorization method for learning attribute representations. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 39(3):417–429, March 2017. (IF: 6.077, 5-year IF: 8.693 (2015))
  - 60) George Trigeorgis, Mihalis A. Nicolaou, Stefanos Zafeiriou, and Björn Schuller. Deep Canonical Time Warping for simultaneous alignment and representation learning of sequences. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 39, 2017. 12 pages, to appear (IF: 6.077, 5-year IF: 8.693 (2015))
  - 61) Xinzhou Xu, Jun Deng, Nicholas Cummins, Zixing Zhang, Chen Wu, Li Zhao, and Björn Schuller. A Two-Dimensional Framework of Multiple Kernel Subspace Learning for Recognising Emotion in Speech. *IEEE/ACM Transactions on Audio, Speech and Language Processing*, 25, 2017. 15 pages, to appear (acceptance rate: 25 %, IF: 2.625, 5-year IF: 2.583 (2013))
  - 62) Zixing Zhang, Nicholas Cummins, and Björn Schuller. Efficient Data Exploration for Automatic Speech Analysis: Challenges and State of the Art. *IEEE Signal Processing Magazine*, 34, 2017. 15 pages, to appear (IF: 6.671 (2015))
  - 63) Björn Schuller. Can Virtual Human Interviewers “Hear” Real Humans’ Depression? *IEEE Computer Magazine*, 49(7):8, July 2016. (IF: 1.438 (2013))
  - 64) Björn Schuller. Speech Emotion Recognition: 20 Years and Beyond. *Communications of the ACM*, 2016. 8 pages, to appear (IF: 3.301, 5-year IF: 4.425 (2015))
  - 65) Jun Deng, Xinzhou Xu, Zixing Zhang, Sascha Frühholz, and Björn Schuller. Exploitation of Phase-based Features for Whispered Speech Emotion Recognition. *IEEE Access*, 4:4299–4309, July 2016. (IF: 1.270, 5-year IF: 1.276 (2015))
  - 66) Florian Eyben, Klaus Scherer, Björn Schuller, Johan Sundberg,

- Elisabeth André, Carlos Busso, Laurence Devillers, Julien Epps, Petri Laukka, Shrikanth Narayanan, and Khiet Truong. The Geneva Minimalistic Acoustic Parameter Set (GeMAPS) for Voice Research and Affective Computing. *IEEE Transactions on Affective Computing*, 7(2):190–202, April–June 2016. (acceptance rate: 22 %, IF: 3.466, 5-year IF: 3.871 (2013))
- 67) Florian Gross, Justus Jordan, Felix Weninger, Felix Klanner, and Björn Schuller. Route and Stopping Intent Prediction at Intersections from Car Fleet Data. *IEEE Transactions on Intelligent Vehicles*, 1(2):177–186, June 2016
- 68) Wenjing Han, Eduardo Coutinho, Huabin Ruan, Haifeng Li, Björn Schuller, Xiaojie Yu, and Xuan Zhu. Semi-Supervised Active Learning for Sound Classification in Hybrid Learning Environments. *PLoS ONE*, 11(9), 2016. 23 pages (IF: 3.234 (2014))
- 69) Jing Han, Zixing Zhang, Nicholas Cummins, Fabien Ringeval, and Björn 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*, 34, 2016. 12 pages, to appear (IF: 1.766, 5-Year IF: 2.584 (2015))
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- 71) Florian Lingenfelser, Johannes Wagner, Jun Deng, Raymond Brueckner, Björn Schuller, and Elisabeth André. Asynchronous and Event-based Fusion Systems for Affect Recognition on Naturalistic Data in Comparison to Conventional Approaches. *IEEE Transactions on Affective Computing*, 7, 2016. 13 pages, to appear (IF: 3.466, 5-year IF: 3.871 (2013))
- 72) Erik Marchi, Sascha Frühholz, and Björn Schuller. The Effect of Narrow-band Transmission on Recognition of Paralinguistic Information from Human Vocalizations. *IEEE Access*, 4:6059–6072, October 2016. (IF: 1.270, 5-year IF: 1.276 (2015))
- 73) Arianna Mencattini, Eugenio Martinelli, Fabien Ringeval, Björn Schuller, and Corrado Di Natale. Continuous Estimation of Emotions in Speech by Dynamic Cooperative Speaker Models. *IEEE Transactions on Affective Computing*, 7, 2016. 14 pages, to appear (IF: 3.466, 5-year IF: 3.871 (2013))
- 74) Kun Qian, Christoph Janott, Vedhas Pandit, Zixing Zhang, Clemens Heiser, Winfried Hohenhorst, Michael Herzog, Werner Hemmert, and Björn Schuller. Classification of the Excitation Location of Snore Sounds in the Upper Airway by Acoustic Multi-Feature Analysis. *IEEE Transactions on Biomedical Engineering*, 2016. 11 pages, to appear (IF: 2.468, 5-year IF: 2.719 (2015))
- 75) Agnieszka Rynkiewicz, Björn Schuller, Erik Marchi, Stefano Piana, Antonio Camurri, Amandine Lassalle, and Simon Baron-Cohen. An investigation of the ‘female camouflage effect’ in autism using a computerized ADOS-2, and a test of sex/gender differences. *Molecular Autism*, 7(10), 2016. 10 pages (IF: 5.413 (2014))
- 76) Hesam Sagha, Nicholas Cummins, and Björn Schuller. Autoencoders for Sentiment Analysis: A Review. *WIREs Data Mining and Knowledge Discovery*, 7, 2017. to appear, invited review article (IF: 1.759 (2015))
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- 78) Björn Schuller, Stefan Steidl, Anton Batliner, Elmar Nöth, Alessandro Vinciarelli, Felix Burkhardt, Rob van Son, Felix Weninger, Florian Eyben, Tobias Bocklet, Gelareh Mohammadi, and Benjamin Weiss. A Survey on Perceived Speaker Traits: Personality, Likability, Pathology, and the First Challenge. *Computer Speech and Language, Special Issue on Next Generation Computational Paralinguistics*, 29(1):100–131, January 2015. (acceptance rate: 23 %, IF: 1.812, 5-year IF: 1.776 (2013))
- 79) Björn Schuller. Do Computers Have Personality? *IEEE Computer Magazine*, 48(3):6–7, March 2015. (IF: 1.438 (2013))
- 80) Björn Schuller, Amr El-Desoky Mousa, and Vryniotis Vasileios. Sentiment Analysis and Opinion Mining: On Optimal Parameters and Performances. *WIREs Data Mining and Knowledge Discovery*, 5:255–263, September/October 2015. invited focus article (IF: 1.759 (2015))
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### C) REFEREED CONFERENCE PROCEEDINGS

#### *Contributions to Conference Proceedings (353):*

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- 522) Fabien Ringeval, Björn Schuller, Michel Valstar, Roddy Cowie, and Maja Pantic, editors. *Proceedings of the 5th International Workshop on Audio/Visual Emotion Challenge, AVEC'15, co-located with MM 2015*, Brisbane, Australia, October 2015. ACM, ACM
- 523) Fabien Ringeval, Björn Schuller, Michel Valstar, Roddy Cowie, and Maja Pantic. AVEC 2015 Chairs' Welcome. In Fabien Ringeval, Björn Schuller, Michel Valstar, Roddy Cowie, and Maja Pantic, editors, *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*, page iii, Brisbane, Australia, October 2015. ACM, ACM
- 524) Björn Schuller, Stefan Steidl, Anton Batliner, Alessandro Vinciarelli, Felix Burkhardt, and Rob van Son. Introduction to the Special Issue on Next Generation Computational Paralinguistics. *Computer Speech and Language, Special Issue on Next Generation Computational Paralinguistics*, 29(1):98–99, January 2015. editorial (acceptance rate: 23 %, IF: 1.812, 5-year IF: 1.776 (2013))
- 525) Björn Schuller, Tiago H. Falk, Vijay Parsa, and Elmar 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))
- 526) Björn Schuller, Paul Buitelaar, Laurence Devillers, Catherine Pelachaud, Thierry Declerck, Anton Batliner, Paolo Rosso, and Seán Gaines, editors. *Proceedings of the 5th International Workshop on Emotion Social Signals, Sentiment & Linked Open Data (ES<sup>3</sup>LOD 2014)*, Reykjavik, Iceland, May 2014. ELRA, ELRA. Satellite of the 9th Language Resources and Evaluation Conference (LREC 2014), (acceptance rate: 72 %)
- 527) Hatice Gunes, Björn Schuller, Oya Celiktutan, Evangelos Sariyanidi, and Florian Eyben, editors. *Proceedings of the Personality Mapping Challenge & Workshop (MAPTRAITS 2014)*, Istanbul, Turkey, November 2014. ACM, ACM. Satellite of the 16th ACM International Conference on Multimodal Interaction (ICMI 2014)
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- 529) Kim Hartmann, Ronald Böck, Björn Schuller, and Klaus R. Scherer, editors. *Proceedings of the 2nd Workshop on Emotion representation and modelling in Human-Computer-Interaction-Systems, ERM4HCI 2014*, Istanbul, Turkey, November 2013. ACM, ACM. held in conjunction with the 16th ACM International Conference on Multimodal Interaction, ICMI 2014
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- 531) Lucas Paletta, Björn W. Schuller, Peter Robinson, and Nicolas 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*, pages 49–50, Haifa, Israel, February 2014. ACM, ACM
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- 533) Lucas Paletta, Björn Schuller, Peter Robinson, and Nicolas Sabouret, editors. *Proceedings of the 2nd International Workshop on Digital Games for Empowerment and Inclusion, IDGEI 2014*, Haifa, Israel, February 2014. ACM, ACM. held in conjunction with the 19th International Conference on Intelligent User Interfaces, IUI 2014
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- 535) Albert Ali Salah, Jeff Cohn, Björn Schuller, Oya Aran, Louis-Philippe Morency, and Philip R. Cohen. ICMI 2014 Chairs' Welcome. In *Proceedings of the 16th ACM International Conference on Multimodal Interaction, ICMI*, pages iii–v, Istanbul, Turkey, November 2014. ACM, ACM. editorial, (acceptance rate: 40 %, IF\* 1.77 (2010))
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- 537) Björn Schuller, Michel Valstar, Roddy Cowie, Jarek Krajewski, and Maja Pantic, editors. *Proceedings of the 3rd ACM international workshop on Audio/visual emotion challenge*, Barcelona, Spain, October 2013. ACM, ACM. held in conjunction with the 21st ACM international conference on Multimedia, ACM MM 2013
- 538) Julien Epps, Fang Chen, Sharon Oviatt, Kenji Mase, Andrew Sears, Kristiina Jokinen, and Björn Schuller. ICMI 2013 Chairs' Welcome. In *Proceedings of the 15th ACM International Conference on Multimodal Interaction, ICMI*, pages 3–4, Sydney, Australia, December 2013. ACM, ACM. editorial, (acceptance rate: 37 %, IF\* 1.77 (2010))
- 539) Kim Hartmann, Ronald Böck, Christian Becker-Asano, Jonathan Gratch, Björn Schuller, and Klaus R. Scherer, editors. *Proceedings of the Workshop on Emotion representation and modelling in Human-Computer-Interaction-Systems, ERM4HCI 2013*, Sydney, Australia, December 2013. ACM, ACM. held in conjunction with the 15th ACM International Conference on

- Multimodal Interaction, ICMI 2013
- 540) Kim Hartmann, Ronald Böck, Christian Becker-Asano, Jonathan Gratch, Björn Schuller, and Klaus R. Scherer. ERM4HCI 2013 - The 1st Workshop on Emotion Representation and Modelling in Human-Computer-Interaction-Systems. In Kim Hartmann, Ronald Böck, Christian Becker-Asano, Jonathan Gratch, Björn Schuller, and Klaus R. Scherer, editors, *Proceedings of the Workshop on Emotion representation and modelling in Human-Computer-Interaction-Systems, ERM4HCI 2013*, Sydney, Australia, December 2013. ACM, ACM. held in conjunction with the 15th ACM International Conference on Multimodal Interaction, ICMI 2013
- 541) Meinard Müller, Shrikanth S. Narayanan, and Björn Schuller, editors. *Report from Dagstuhl Seminar 13451 – Computational Audio Analysis*, volume 3 of *Dagstuhl Reports*, Dagstuhl, Germany, November 2013. Schloss Dagstuhl, Leibniz-Zentrum fuer Informatik, Dagstuhl Publishing. 28 pages
- 542) Lucas Paletta, Laurent Itti, Björn Schuller, and Fang Fang, editors. *Proceedings of the 6th International Symposium on Attention in Cognitive Systems 2013, ISACS 2013*, LNAI, Beijing, P.R. China, August 2013. arxiv.org, Springer. held in conjunction with the 23rd International Joint Conference on Artificial Intelligence, IJCAI 2013
- 543) Björn Schuller, Michel Valstar, Roddy Cowie, and Maja Pantic. AVEC 2012: the continuous audio/visual emotion challenge – an introduction. In Louis-Philippe Morency, Dan Bohus, Hamid K. Aghajan, Justine Cassell, Anton Nijholt, and Julien Epps, editors, *Proceedings of the 14th ACM International Conference on Multimodal Interaction, ICMI*, pages 361–362, Santa Monica, CA, October 2012. ACM, ACM. (acceptance rate: 36 %, IF\* 1.77 (2010))
- 544) Björn Schuller, Stefan Steidl, and Anton 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*, 27(1):1–3, January 2013. editorial (acceptance rate: 36 %, IF: 1.812, 5-year IF: 1.776 (2013))
- 545) Hatice Gunes and Björn Schuller. Introduction to the Special Issue on Affect Analysis in Continuous Input. *Image and Vision Computing, Special Issue on Affect Analysis in Continuous Input*, 31(2):118–119, February 2013. (IF: 1.723, 5-Year IF: 1.743 (2011))
- 546) Björn Schuller, Ellen Douglas-Cowie, and Anton 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*, 3(1):3–4, January–March 2012. (IF: 3.466, 5-year IF: 3.871 (2013))
- 547) Erik Cambria, Amir Hussain, Björn Schuller, and Newton 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*, 58(10):1–3, October 2014. editorial (IF: 2.182, 5-year IF: 2.477 (2012))
- 548) Erik Cambria, Björn Schuller, Bing Liu, Haixun Wang, and Catherine 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*, 28(2):12–14, March/April 2013. (IF: 2.570, 5-year IF: 2.632 (2010))
- 549) Erik Cambria, Björn Schuller, Bing Liu, Haixun Wang, and Catherine Havasi. Guest Editor’s Introduction: Statistical Approaches to Concept-Level Sentiment Analysis. *IEEE Intelligent Systems Magazine, Special Issue on Statistical Approaches to Concept-Level Sentiment Analysis*, 28(3):6–9, May/June 2013. (IF: 2.570, 5-year IF: 2.632 (2010))
- 550) Laurence Devillers, Björn Schuller, Anton Batliner, Paolo Rosso, Ellen Douglas-Cowie, Roddy Cowie, and Catherine Pelachaud, editors. *Proceedings of the 4th International Workshop on EMOTION SENTIMENT & SOCIAL SIGNALS 2012 (ES 2012) – Corpora for Research on Emotion, Sentiment & Social Signals*, Istanbul, Turkey, May 2012. ELRA, ELRA. held in conjunction with LREC 2012
- 551) Julien Epps, Roddy Cowie, Shrikanth Narayanan, Björn Schuller, and Jianhua 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*, 2012(15), 2012. 2 pages (acceptance rate: 38 %, IF: 1.012, 5-Year IF: 1.136 (2010))
- 552) Stefano Squartini, Björn Schuller, and Amir Hussain. Cognitive and Emotional Information Processing for Human-Machine Interaction. *Cognitive Computation, Special Issue on Cognitive and Emotional Information Processing for Human-Machine Interaction*, 4(4):383–385, August 2012. (IF: 1.000 (2011))
- 553) Björn Schuller, Stefan Steidl, and Anton 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*, 53(9/10):1059–1061, November/December 2011. (acceptance rate: 38 %, IF: 1.267, 5-year IF: 1.526 (2011))
- 554) Björn Schuller, Michel Valstar, Roddy Cowie, and Maja Pantic, editors. *Proceedings of the First International Audio/Visual Emotion Challenge and Workshop, AVEC 2011*, volume 6975, Part II of *Lecture Notes on Computer Science (LNCS)*, Memphis, TN, October 2011. HUMAINE Association, Springer. held in conjunction with the International HUMAINE Association Conference on Affective Computing and Intelligent Interaction 2011, ACII 2011
- 555) Laurence Devillers, Björn Schuller, Roddy Cowie, Ellen Douglas-Cowie, and Anton Batliner, editors. *Proceedings of the 3rd International Workshop on EMOTION: Corpora for Research on Emotion and Affect*, Valletta, Malta, May 2010. ELRA, ELRA. Satellite of 7th International Conference on Language Resources and Evaluation (LREC 2010) (acceptance rate: 69 %, IF\* 1.37 (2010))
- Abstracts in Journals (6):*
- 556) Florian B. Pokorny, Björn W. Schuller, Iris Tomantschger, Dajie Zhang, Christa Einspieler, and Peter B. Marschik. Intelligent pre-linguistic vocalisation analysis: a promising novel approach for the earlier identification of Rett syndrome. *Wiener Medizinische Wochenschrift*, 166(11–12):382–383, July 2016. Rett Syndrome – RTT50.1 (IF: 0.56 (2015))
- 557) Björn Schuller. Approaching Cross-Audio Computer Audition. *Dagstuhl Reports*, 3(11):22–22, November 2013
- 558) Florian Metze, Xavier Anguera, Sebastian Ewert, Jort Gemmeke, Dorothea Kolossa, Emily Mower Provost, Björn Schuller, and Joan Serra. Learning of Units and Knowledge Representation. *Dagstuhl Reports*, 3(11):13–13, November 2013
- 559) Björn Schuller, Shimrit Fridenzon, Shahar Tal, Erik Marchi, Anton Batliner, and Ofer Golan. Learning the Acoustics of Autism-Spectrum Emotional Expressions – A Children’s Game? *Neuropsychiatrie de l’Enfance et de l’Adolescence*, 60(5S):32, July 2012. invited contribution
- 560) Björn Schuller. Next Gen Music Analysis: Some Inspirations from Speech. *Dagstuhl Reports*, 1(1):93–93, 2011
- 561) Sebastian Ewert, Masataka Goto, Peter Grosche, Florian Kaiser, Kazuyoshi Yoshii, Frank Kurth, Matthias Mauch, Meinard Müller, Geoffroy Peeters, Gaël Richard, and Björn Schuller. Signal Models for and Fusion of Multimodal Information. *Dagstuhl Reports*, 1(1):97–97, 2011
- Abstracts in Conference/Challenge Proceedings (22)*
- 562) Nicholas Cummins, Simone Hantke, Sebastian Schnieder, Jarek Krajewski, and Björn 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*, pages 14–15, Boston, MA, April 2017. Society for Affective Science (SAS)
- 563) Jian Guo, Kun Qian, Björn Schuller, and Satoshi Matsuoka. GPU Processing Accelerates Training Autoencoders for Bird Sounds Data. In *Proceedings 2017 GPU Technology Conference (GTC)*, San Jose, CA, May 2017. NVIDIA. 1 page, to appear
- 564) Florian B. Pokorny, Björn W. Schuller, Katrin D. Bartl-Pokorny, Dajie Zhang, Christa Einspieler, and Peter B. Marschik. In a bad mood? Automatic audio-based recognition of infant fussing and crying in video-taped vocalisations. In *Proceedings 2017 13th International Infant Cry Workshop*, Castel Noarna-Rovereto, Italy, July 2017. 1 page
- 565) Björn Schuller. Engage to Empower: Emotionally Intelligent Computer Games & Robots for Autistic Children. In Agnieszka Rynkiewicz and Karol Grabowski, editors, *Proceedings “The world innovations combining medicine, engineering and technology in autism diagnosis and therapy”*, pages 65–67, Rzeszow, Poland, September 2016. SOLIS RADIUS
- 566) Björn Schuller. Zaangażowanie aby wzmacniać kompetencje: emocjonalnie inteligentne roboty i gry komputerowe dla dzieci z autyzmem. In Agnieszka Rynkiewicz and Karol Grabowski, editors, *Proceedings “Światowe innowacje łączące medycynę, inżynierie oraz technologie w diagnozowaniu i terapii autyzmu”*, pages 62–64, Rzeszow, Poland, September 2016. SOLIS RADIUS
- 567) Florian B. Pokorny, Björn W. Schuller, Katrin D. Bartl-Pokorny, Christa Einspieler, and Peter 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, October 2016. ÖPG, ÖPG. 1 page, Best Poster award 3rd place
- 568) Florian B. Pokorny, Björn W. Schuller, Robert Peharz, Franz Pernkopf, Katrin D. Bartl-Pokorny, Christa Einspieler, and Peter 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
- 569) Florian B. Pokorny, Björn W. Schuller, Robert Peharz, Franz Pernkopf, Katrin D. Bartl-Pokorny, Christa Einspieler, and Peter 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
- 570) Ognjen Rudovic, Vanessa Evers, Maja Pantic, Björn Schuller, and Suncica Petrovic. DE-ENIGMA Robots: Playfully Empowering Children with Autism. In *Proceedings XI Autism-Europe International Congress*, Edinburgh, Scotland, September 2016. Autism Europe, The National Autistic Society. 1 page
- 571) Ognjen Rudovic, Jaeryoung Lee, Björn Schuller, and Rosalind 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, September 2016. Autism Europe, The National Autistic Society. 1 page
- 572) Björn 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*, pages 443–446, Atlanta, GA, March 2015. ACM, ACM
- 573) Florian B. Pokorny, Christa Einspieler, Dajie Zhang, Andreas Kimmerle, Katrin D. Bartl-Pokorny, Björn W. Schuller, and Sven 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
- 574) Björn 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, November 2013. The Rank Prize Funds, The Rank Prize Funds. invited contribution, 1 page
- 575) Giacomo Ferroni, Erik Marchi, Florian Eyben, Stefano Squartini, and Björn 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, November 2013. ISMIR, ISMIR. 3 pages
- 576) Giacomo Ferroni, Erik Marchi, Florian Eyben, Leonardo Gabrielli, Stefano Squartini, and Björn 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, November 2013. ISMIR, ISMIR. 4 pages
- 577) Hatice Gunes and Björn 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, October 2012. ACM, ACM. 2 pages
- 578) Marc Schröder, Sathish Pammi, Hatice Gunes, Maja Pantic, Michel Valstar, Roddy Cowie, Gary McKeown, Dirk Heylen, Mark ter Maat, Florian Eyben, Björn Schuller, Martin Wöllmer, Elisabetta Bevacqua, Catherine Pelachaud, and Etienne 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*, pages 646–646, Santa Barbara, CA, March 2011. IEEE, IEEE
- 579) Florian Eyben and Björn 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, August 2010. ISMIR, ISMIR. 2 pages (acceptance rate: 61 %)
- 580) Florian Eyben and Björn 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, August 2010. ISMIR, ISMIR. 1 page (acceptance rate: 61 %)
- 581) Sebastian Böck, Florian Eyben, and Björn 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, August 2010. ISMIR, ISMIR. 2 pages (acceptance rate: 61 %)
- 582) Sebastian Böck, Florian Eyben, and Björn 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, August 2010. ISMIR, ISMIR. 2 pages (acceptance rate: 61 %)
- 583) Sebastian Böck, Florian Eyben, and Björn 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, August 2010. ISMIR, ISMIR. 3 pages (acceptance rate: 61 %)
- Invited Papers (30):*
- 584) Björn Schuller, Martin Wöllmer, Florian Eyben, Gerhard Rigoll, and Dejan Arsić. Semantic Speech Tagging: Towards Combined

- Analysis of Speaker Traits. In Karlheinz Brandenburg and Mark Sandler, editors, *Proceedings AES 42nd International Conference*, pages 89–97, Ilmenau, Germany, July 2011. AES, Audio Engineering Society. invited contribution
- 585) Björn Schuller, Salman Can, and Hubertus 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*, pages 121–123, Munich, Germany, July 2009. invited contribution
- 586) Björn Schuller, Alexander Lehmann, Felix Weninger, Florian Eyben, and Gerhard 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*, pages 361–364, Rotterdam, The Netherlands, March 2009. Acoustical Society of the Netherlands, DEGA, DEGA. invited contribution
- 587) Björn Schuller. Speaker, Noise, and Acoustic Space Adaptation for Emotion Recognition in the Automotive Environment. In *Proceedings 8th ITG Conference on Speech Communication*, volume 211 of *ITG-Fachbericht*, Aachen, Germany, October 2008. ITG, VDE-Verlag. invited contribution, 4 pages
- 588) Björn Schuller, Martin Wöllmer, Tobias Moosmayr, and Gerhard Rigoll. Robust Spelling and Digit Recognition in the Car: Switching Models and Their Like. In *Proceedings 34. Jahrestagung für Akustik, DAGA 2008*, pages 847–848, Dresden, Germany, March 2008. DEGA, DEGA. invited contribution, Structured Session Sprachakustik im Kraftfahrzeug
- 589) Björn Schuller, Florian Eyben, and Gerhard Rigoll. Beat-Synchronous Data-driven Automatic Chord Labeling. In *Proceedings 34. Jahrestagung für Akustik, DAGA 2008*, pages 555–556, Dresden, Germany, March 2008. DEGA, DEGA. invited contribution, Structured Session Music Processing
- 590) Björn Schuller, Salman Can, Christoph Scheuermann, Hubertus Feussner, and Gerhard Rigoll. Robust Speech Recognition for Human-Robot Interaction in Minimal Invasive Surgery. In *Proceedings 4th Russian-Bavarian Conference on Bio-Medical Engineering, RBC-BME 2008*, pages 197–201, Zelenograd, Russia, July 2008. invited contribution
- 591) Björn Schuller, Ronald Müller, Benedikt Hörnler, Anja Höthker, Hitoshi Konosu, and Gerhard Rigoll. Audiovisual Recognition of Spontaneous Interest within Conversations. In *Proceedings 9th ACM International Conference on Multimodal Interfaces, ICMI 2007*, pages 30–37, Nagoya, Japan, November 2007. ACM, ACM. invited contribution, Special Session on Multimodal Analysis of Human Spontaneous Behaviour (acceptance rate: 56 %, IF\* 1.77 (2010))
- 592) Björn Schuller, Gerhard Rigoll, Michael Grimm, Kristian Kroschel, Tobias Moosmayr, and Günther Ruske. Effects of In-Car Noise-Conditions on the Recognition of Emotion within Speech. In *Proceedings 33. Jahrestagung für Akustik, DAGA 2007*, pages 305–306, Stuttgart, Germany, March 2007. DEGA, DEGA. invited contribution, Structured Session Sprachakustik im Kraftfahrzeug
- 593) Björn Schuller, Jan Stadermann, and Gerhard Rigoll. Affect-Robust Speech Recognition by Dynamic Emotional Adaptation. In *Proceedings 3rd International Conference on Speech Prosody, SP 2006*, Dresden, Germany, May 2006. ISCA, ISCA. invited contribution, Special Session Prosody in Automatic Speech Recognition, 4 pages
- 594) Björn Schuller, Manfred Lang, and Gerhard Rigoll. Recognition of Spontaneous Emotions by Speech within Automotive Environment. In *Proceedings 32. Jahrestagung für Akustik, DAGA 2006*, pages 57–58, Braunschweig, Germany, March 2006. DEGA, DEGA. invited contribution, Structured Session Sprachakustik im Kraftfahrzeug
- 595) Björn Schuller and Gerhard Rigoll. Self-learning Acoustic Feature Generation and Selection for the Discrimination of Musical Signals. In *Proceedings 32. Jahrestagung für Akustik, DAGA 2006*, pages 285–286, Braunschweig, Germany, March 2006. DEGA, DEGA. invited contribution, Structured Session Music Processing
- 596) Björn Schuller, Ronald Müller, Manfred Lang, and Gerhard Rigoll. Speaker Independent Emotion Recognition by Early Fusion of Acoustic and Linguistic Features within Ensembles. In *Proceedings Interspeech 2005, Eurospeech*, pages 805–809, Lisbon, Portugal, September 2005. ISCA, ISCA. invited contribution, Special Session Emotional Speech Analysis and Synthesis: Towards a Multimodal Approach (acceptance rate: 61 %, IF\* 1.05 (2010), > 100 citations)
- 597) Björn Schuller, Manfred Lang, and Gerhard Rigoll. Robust Acoustic Speech Emotion Recognition by Ensembles of Classifiers. In *Proceedings 31. Jahrestagung für Akustik, DAGA 2005*, pages 329–330, Munich, Germany, March 2005. DEGA, DEGA. invited contribution, Structured Session Automatische Spracherkennung in gestörter Umgebung
- 598) Björn Schuller, Gerhard Rigoll, and Manfred Lang. Matching Monophonic Audio Clips to Polyphonic Recordings. In *Proceedings 31. Jahrestagung für Akustik, DAGA 2005*, pages 299–300, Munich, Germany, March 2005. DEGA, DEGA. invited contribution, Structured Session Music Processing
- 599) Zixing Zhang, Felix Weninger, and Björn Schuller. Towards Automatic Intoxication Detection from Speech in Real-Life Acoustic Environments. In Tim Fingscheidt and Walter Kellermann, editors, *Proceedings of Speech Communication; 10. ITG Symposium*, pages 1–4, Braunschweig, Germany, September 2012. ITG, IEEE. invited contribution
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