# PUBLICATIONS BY Adria Mallol-Ragolta

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#### a) Books

### Contributions to Books (1):

 N. Cummins, Z. Ren, A. Mallol-Ragolta, and B. Schuller, "Machine learning in digital health, recent trends, and ongoing challenges," in *Artificial Intelligence in Precision Health* (D. Barh, ed.), ch. 5, pp. 121–148, Academic Press/Elsevier, 2020. invited contribution

# B) REFEREED JOURNAL PAPERS (5)

- S. Liu, A. Mallol-Ragolta, T. Yan, K. Qian, E. Parada-Cabaleiro, B. Hu, and B. Schuller, "Capturing Time Dynamics from Speech using Neural Networks for Surgical Masks Detection," *Journal* of Biomedical and Health Informatics, May 2022. 14 pages, to appear
- 3) A. Mallol-Ragolta, A. Semertzidou, M. Pateraki, and B. Schuller, "Outer Product-Based Fusion of Smartwatch Sensor Data for Human Activity Recognition," *Frontiers in Computer Science, section Mobile and Ubiquitous Computing*, vol. 4, pp. 1–10, March 2022. Article ID 796866
- 4) M. M. Mohamed, M. A. Nessiem, A. Batliner, C. Bergler, S. Hantke, M. Schmitt, A. Baird, A. Mallol-Ragolta, V. Karas, S. Amiriparian, and B. Schuller, "Face Mask Recognition from Audio: The MASC Database and an Overview on the Mask Challenge," *Pattern Recognition*, vol. 122, pp. 1–11, February 2022. Article ID 108361
- M. Song, A. Mallol-Ragolta, E. Parada-Cabaleiro, Z. Yang, S. Liu, Z. Ren, Z. Zhao, and B. Schuller, "Frustration Recognition from Speech During Game Interaction Using Wide Residual Networks," *Virtual Reality & Intelligent Hardware*, vol. 3, pp. 76–86, February 2021
- 6) S. Amiriparian, J. Han, M. Schmitt, A. Baird, A. Mallol-Ragolta, M. Milling, M. Gerczuk, and B. Schuller, "Synchronisation in Interpersonal Speech," Frontiers in Robotics and AI, section Humanoid Robotics, Special Issue on Computational Approaches for Human-Human and Human-Robot Social Interactions, vol. 6, pp. 1–10, November 2019. Article ID 116

#### C) REFEREED CONFERENCE PROCEEDINGS

## Contributions to Conference Proceedings (17):

- 7) A. Mallol-Ragolta, F. B. Pokorny, K. D. Bartl-Pokorny, A. Semertzidou, and B. Schuller, "Triplet Loss-Based Models for COVID-19 Detection from Vocal Sounds," in *Proceedings of the 44th Annual International Conference of the Engineering in Medicine & Biology Society, EMBC 2022*, (Glasgow, UK), IEEE, IEEE, July 2022. 4 pages, to appear
- 8) V. Karas, M. K. Tellamekala, A. Mallol-Ragolta, M. Valstar, and B. Schuller, "Time-Continuous Audiovisual Fusion with Recurrence vs. Attention for In-The-Wild Affect Recognition," in Workshop Proceedings of the Conference on Computer Vision and Pattern Recognition, CVPR 2022, (New Orleans, LA, USA), Computer Vision Foundation, IEEE, June 2022. to appear
- 9) A. Mallol-Ragolta, M. Maniadakis, G. Papadopoulos, and B. Schuller, "Time Series Representation using TS2Vec on Smartwatch Sensor Data for Fatigue Estimation," in *Proceedings of the 13th International Conference on Applied Human*

- Factors and Ergonomics, AHFE 2022, (New York, NY, USA), Springer, July 2022. 7 pages, to appear
- 10) A. Mallol-Ragolta, I. Varlamis, M. Pateraki, M. Lourakis, G. Athanassiou, M. Maniadakis, K. Papoutsakis, T. Papadopoulos, A. Semertzidou, N. Cummins, B. Schuller, I.-A. Karolos, C. Pikridas, P. Patias, S. Vantolas, L. Kallipolitis, F. Werner, A. Ascolese, and V. Nitti, "sustAGE 1.0 First Prototype, Use Cases, and Usability Evaluation," in *Proceedings of the 7th International Conference on Human Interaction & Emerging Technologies: Artificial Intelligence & Future Applications, IHIET-AI 2022*, (Lausanne, Switzerland Virtual Event), Springer, April 2022. 10 pages, to appear
- 11) A. Mallol-Ragolta, A. Semertzidou, M. Pateraki, and B. Schuller, "harAGE: A Novel Multimodal Smartwatch-based Dataset for Human Activity Recognition," in *Proceedings of* the 16th International Conference on Automatic Face and Gesture Recognition, FG 2021, (Jodhpur, India – Virtual Event), IEEE, IEEE, December 2021. 7 pages (acceptance rate: 35%)
- 12) S. Liu, A. Mallol-Ragolta, and B. Schuller, "COVID-19 Detection with a Novel Multi-Type Deep Fusion Method using Breathing and Coughing Information," in *Proceedings of the 43rd Annual International Conference of the Engineering in Medicine & Biology Society, EMBC 2021*, (Guadalajara, Mexico Virtual Event), pp. 1840–1843, IEEE, IEEE, October 2021
- 13) A. Mallol-Ragolta, S. Liu, and B. Schuller, "The Filtering Effect of Face Masks in their Detection from Speech," in *Proceedings* of the 43rd Annual International Conference of the Engineering in Medicine & Biology Society, EMBC 2021, (Guadalajara, Mexico – Virtual Event), pp. 2079–2082, IEEE, IEEE, October 2021
- 14) A. Mallol-Ragolta, H. Cuesta, E. Gómez, and B. Schuller, "Cough-based COVID-19 Detection with Contextual Attention Convolutional Neural Networks and Gender Information," in Proceedings of the 22nd Annual Conference of the International Speech Communication Association, INTERSPEECH 2021, (Brno, Czechia – Virtual Event), pp. 941–945, ISCA, ISCA, September 2021. (acceptance rate: 49 %)
- 15) S. Tirunellai Rajamani, K. Tirunellai Rajamani, A. Mallol-Ragolta, S. Liu, and B. Schuller, "A Novel Attention-based Gated Recurrent Unit and its Efficacy in Speech Emotion Recognition," in *Proceedings of the 46th International Conference on Acoustics, Speech, and Signal Processing, ICASSP* 2021, (Toronto, Canada Virtual Event), pp. 6294–6298, IEEE, IEEE, June 2021. (acceptance rate: 48 %)
- 16) D. Aspandi, A. Mallol-Ragolta, B. Schuller, and X. Binefa, "Latent-Based Adversarial Neural Networks for Facial Affect Estimations," in Workshop Proceedings of the 15th International Conference on Automatic Face & Gesture Recognition, FG 2020, (Buenos Aires, Argentina – Virtual Event), pp. 348–352, IEEE, IEEE, May 2020
- 17) A. Mallol-Ragolta, S. Liu, N. Cummins, and B. Schuller, "A Curriculum Learning Approach for Pain Intensity Recognition from Facial Expressions," in *Workshop Proceedings of the 15th International Conference on Automatic Face & Gesture Recognition, FG 2020*, (Buenos Aires, Argentina Virtual Event), pp. 534–538, IEEE, IEEE, May 2020
- 18) A. Mallol-Ragolta, N. Cummins, and B. Schuller, "An Investigation of Cross-Cultural Semi-Supervised Learning for Continuous Affect Recognition," in *Proceedings of the 21st Annual Conference of the International Speech Communication Association, INTERSPEECH 2020*, (Shanghai, China Virtual Event), pp. 511–515, ISCA, ISCA, October 2020. (acceptance rate: 47%)
- 19) L. Stappen, A. Baird, G. Rizos, P. Tzirakis, X. Du, F. Hafner, L. Schumann, A. Mallol-Ragolta, B. Schuller, I. Lefter, E. Cambria, and I. Kompatsiaris, "MuSe 2020 Challenge and Workshop: Multimodal Sentiment Analysis, Emotion-target Engagement and Trustworthiness Detection in Real-life Media," in

- Proceedings of the 1st Multimodal Sentiment in Real-life Media Challenge and Workshop, MuSe 2020, co-located with the 28th International Conference on Multimedia, MM 2020, (Seattle, WA – Virtual Event), pp. 35–44, ACM, ACM, October 2020
- 20) F. Ringeval, B. Schuller, M. Valstar, N. Cummins, R. Cowie, L. Tavabi, M. Schmitt, S. Alisamir, S. Amiriparian, E.-M. Messner, S. Song, S. Liu, Z. Zhao, A. Mallol-Ragolta, Z. Ren, M. Soleymani, and M. Pantic, "AVEC 2019 Workshop and Challenge: State-of-Mind, Detecting Depression with AI, and Cross-Cultural Affect Recognition," in *Proceedings of the 9th International Workshop on Audio/Visual Emotion Challenge, AVEC 2019, co-located with the 27th International Conference on Multimedia, MM 2019* (F. Ringeval, B. Schuller, M. Valstar, N. Cummins, R. Cowie, and M. Pantic, eds.), (Niece, France), pp. 3–12, ACM, ACM, October 2019
- 21) A. Mallol-Ragolta, Z. Zhao, L. Stappen, N. Cummins, and B. Schuller, "A Hierarchical Attention Network-Based Approach for Depression Detection from Transcribed Clinical Interviews," in *Proceedings of the 20th Annual Conference of the International Speech Communication Association, INTER-SPEECH 2019*, (Graz, Austria), pp. 221–225, ISCA, ISCA, September 2019. (acceptance rate: 49.3 %)
- 22) A. Mallol-Ragolta, M. Schmitt, A. Baird, N. Cummins, and B. Schuller, "Performance Analysis of Unimodal and Multimodal Models in Valence-Based Empathy Recognition," in Workshop Proceedings of the 14th International Conference on Automatic Face & Gesture Recognition, FG 2019, (Lille, France), IEEE, IEEE, May 2019. 5 pages
- 23) A. Mallol-Ragolta, S. Dhamija, and T. E. Boult, "A Multimodal Approach for Predicting Changes in PTSD Symptom Severity," in *Proceedings of the 20th International Conference on Multi-modal Interaction, ICMI 18*, (Boulder, CO, USA), pp. 324–333, ACM, ACM, October 2018

#### D) OTHER

# Theses (2):

- 24) A. Mallol-Ragolta, Post-Traumatic Stress Disorder Severity Prediction on Web-based Trauma Recovery Treatments Through Electrodermal Activity Measurements. Master thesis, University of Colorado Colorado Springs, Colorado Springs, CO, USA, July 2018. 149 pages
- 25) A. Mallol-Ragolta, Facial shape estimation methods for computing physiological signals with non-invasive techniques. Bachelor thesis, Universitat Pompeu Fabra, Barcelona, Spain, July 2016. 120 pages

# Abstracts in Conference/Challenge Proceedings (1)

26) L. Stappen, N. Cummins, E.-M. Messner, A. Mallol-Ragolta, H. Baumeister, and B. Schuller, "Attention-based Neural Networks for the Detection of Objective Linguistic Markers in Depressive Spoken and Written Language," in *Proceedings of the* 16th International Pragmatics Conference, IPrA 2019, (Hong Kong, China), p. 759, International Pragmatics Association (IPrA), IPrA, June 2019

#### Technical Reports and Preprints (7):

- 27) V. Karas, M. K. Tellamekala, A. Mallol-Ragolta, M. Valstar, and B. Schuller, "Continuous-Time Audiovisual Fusion with Recurrence vs. Attention for In-The-Wild Affect Recognition," arxiv.org, March 2022. 10 pages
- 28) S. Liu, A. Mallol-Ragolta, E. Parada-Cabeleiro, K. Qian, X. Jing, A. Kathan, B. Hu, and B. Schuller, "Audio Self-Supervised Learning: A Survey," arxiv.org, March 2022. 24 pages
- 29) A. Mallol-Ragolta, H. Cuesta, E. Gómez, and B. Schuller, "EIHW-MTG: Second DiCOVA Challenge System Report," arxiv.org, October 2021. 4 pages

- A. Mallol-Ragolta, H. Cuesta, E. Gómez, and B. Schuller, "EIHW-MTG DiCOVA 2021 Challenge System Report," arxiv.org, October 2021. 4 pages
- D. Aspandi, A. Mallol-Ragolta, B. Schuller, and X. Binefa, "Adversarial-based neural networks for affect estimations in the wild," arxiv.org, January 2020. 5 pages
- 32) L. Stappen, A. Baird, G. Rizos, P. Tzirakis, X. Du, F. Hafner, L. Schumann, A. Mallol-Ragolta, B. Schuller, I. Lefter, E. Cambria, and I. Kompatsiaris, "MuSe 2020 The First International Multimodal Sentiment Analysis in Real-life Media Challenge and Workshop," arxiv.org, April 2020. 10 pages
- 33) F. Ringeval, B. Schuller, M. Valstar, N. Cummins, R. Cowie, L. Tavabi, M. Schmitt, S. Alisamir, S. Amiriparian, E.-M. Messner, S. Song, S. Liu, Z. Zhao, A. Mallol-Ragolta, Z. Ren, M. Soleymani, and M. Pantic, "AVEC 2019 Workshop and Challenge: State-of-Mind, Detecting Depression with AI, and Cross-Cultural Affect Recognition," arxiv.org, July 2019. 11 pages