Curriculum Vitae

INFORMAZIONI PERSONALI

Nome   SABATO MARCO
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RICERCHE FINANZIATE

1. MUR PRIN 2022 - Progetti di Rilevante Interesse Nazionale - 2022-2024. Ruolo: Coordinatore Unità di Ricerca. Titolo Progetto: Speech and Handwriting Analysis to Predict Early Alzheimer's Disease – SHAPE-AD. Budget: € 315.402,00 . Identificativo: 2022X8JWJP. Partner Accademici: Università di Cassino e del LAZIO MERIDIONALE, Università degli Studi di Napoli Federico II, Università Kore di Enna

2. PNC – PNRR. Titolo: DARE - Digital Lifelong Prevention. Ruolo: Co-PI Spoke 2. Identificativo: PNC0000002. Total budget: € 124.000.000,00. Partner (Spoke 2): UNIBO, UNIPA, UKE, UNIPD, FPG, BI-REX, ARPA, LEI, AOUPCT, ROMA1, UCSC, UPMCI, MCHGVM,AUSL Romagna, ENG

3. PO FESR 2014-2020. Titolo: Realizzazione di ambienti digitali per la didattica, la ricerca e la terza missione. Ruolo: Responsabile Scientifico. Total Budget: € 3.573.870,95. Identificativo: J77G22000150002

4. RESEARCH COUNCIL OF NORWAY 2021. Titolo:SCRIBE: Machine transcription of Norwegian conversational speech– 2021-2026. Ruolo: Co-Coordinatore del WP3. Identificativo: 322964. Total budget: NOK 27 milion (€ 2.65 million). Partner: Norwegian University of Science and Technology - NTNU (Norvegia), Telenor Research (Noway), Nasjonalbiblioteket (Norway)

5. MIUR PRIN 2017 - Progetti di Rilevante Interesse Nazionale - 2019-2022. Titolo Progetto: Phonetic analysis of dysarthric speech by speakers of different varieties of Italian to develop clinical tools: objective, quantitative assessment for severity measurement, early diagnosis and rehabilitation planning, taking into account sociophonetic variation. Ruolo: Coordinatore Unità di Ricerca. Identificativo: 2017JNKCYZ. Partner: Università del Sannio, Università di Bari, Università Kore di Enna

6. RESEARCH COUNCIL OF NORWAY 2015. Titolo: Aulus - Atomic units for language universal representation of speech – 2015-2019. Ruolo: Co-Scientific Coordinator and Coordinator of WP4. Identificativo: 240282/O70. Total budget: NOK 12 milion (€ 1.34 million). Partner: Norwegian University of Science and Technology - NTNU (Norvegia), Eurecom (Francia) e Università Kore di Enna (Italia)

7. NOKIA FUNDATION GRANT 2015 - Characterization of Spoken Languages Using Language-Universal Speech Attributes with Applications to Automatic Accent Recognition. Project number: 201600008. Principal Investigator

8. PRIN 2009 - Progetti di Rilevante Interesse Nazionale - 2009-2013. Ruolo: Membro unità di ricerca. Identificativo: 20097THAEX002.

INCARICHI / CONSULENZE

1.   Consulenza scientifica in conto terzi a favore della Boehringer Ingelheim Pharmaceuticals Inc., 900 Ridgebury Road Ridgefield, CT 06877 USA. Argomento dell'attività: Particle Picking from Digital Images and Deep Learning Methods For Automatic Particle Detection And Picking. Ruolo: Responsabile Scientifico. Sede: STMLab – Università Kore di Enna. Periodo maggio - novembre 2021

2. Consulenza scientifica in conto terzi a favore della Boehringer Ingelheim Pharmaceuticals Inc., 900 Ridgebury Road Ridgefield, CT 06877 USA. Argomento dell'attività: Machine-learning-based correlation in silico polymorph complexity evaluation. Ruolo: Responsabile Scientifico. Sede: STMLab – Università

ASSOCIAZIONI SCIENTIFICHE

ISCA - International Speech Communication Association

IEEE - Institute of Electrical and Electronics Engineers

PUBBLICAZIONE

Peer-review Journal (available on SCOPUS and/or WOS)

1.   Adiban, M., Siniscalchi, S.M., Salvi, G., *A step-by-step training method for multi generator GANs with application to anomaly detection and cybersecurity,* (2023) Neurocomputing, 537, pp. 296-308. DOI: 10.1016/j.neucom. 2023.03.056. ISSN: 09252312

2.   L. Mereu, B. Pecorino, M. Ferrara, S.M. Siniscalchi, G. Garraffa, M. G. D'Agate, P. Scollo, "Cumulative Sum Analysis of Learning Curve Process for Vaginal Natural Orifice Transluminal Endoscopic Surgery Hysterectomy," Journal of Minimally Invasive Gynecology, 2023 (in press)

3.   Shahrebabaki, A.S., Salvi, G., Svendsen, T., Siniscalchi, S.M., *Acoustic-to-Articulatory Mapping with Joint Optimization of Deep Speech Enhancement and Articulatory Inversion Models,* (2022) IEEE/ACM Transactions on Audio Speech and Language Processing, 30, pp. 135-147. DOI: 10.1109/TASLP.2021.3133218. ISSN: 23299290

4.   Conti, V., Rundo, L., Militello, C., Salerno, V.M., Vitabile, S., Siniscalchi, S.M., *A multimodal retina-iris biometric system using the levenshtein distance for spatial feature comparison,* (2021) IET Biometrics, 10 (1), pp. 44-64. DOI: 10.1049/bme2.12001. ISSN: 20474938

5.   Siniscalchi, S.M., *Vector-to-Vector Regression via Distributional Loss for Speech Enhancement,* (2021) IEEE Signal Processing Letters, 28, art. no. 9317794, pp. 254-258. DOI: 10.1109/LSP.2021.3050386. ISSN: 10709908

6.   Hussain, T., Siniscalchi, S.M., Wang, H.-L.S., Tsao, Y., Salerno, V.M., Liao, W.-H., *Ensemble hierarchical extreme learning machine for speech dereverberation,* (2020) IEEE Transactions on Cognitive and Developmental Systems, 12 (4), art. no. 8906014, pp. 744-758. DOI: 10.1109/TCDS.2019.2953620. ISSN: 23798920

7.   Qi, J., Du, J., Siniscalchi, S.M., Ma, X., Lee, C.-H.,*On Mean Absolute Error for Deep Neural Network Based Vector-to-Vector Regression,* (2020) IEEE Signal Processing Letters, 27, art. no. 9167435, pp. 1485-1489. DOI: 10.1109/LSP.2020.3016837. ISSN: 10709908

8.   Qi, J., Du, J., Siniscalchi, S.M., Ma, X., Lee, C.-H., *Analyzing Upper Bounds on Mean Absolute Errors for Deep Neural Network-Based Vector-to-Vector Regression,* (2020) IEEE Transactions on Signal Processing, 68, art. no. 9089350, pp. 3411-3422. DOI: 10.1109/TSP.2020.2993164. ISSN: 1053587X

9.   Kukanov, I., Trong, T.N., Hautamäki, V., Siniscalchi, S.M., Salerno, V.M., Lee, K.A., *Maximal figure-of-merit framework to detect multi-label phonetic features for spoken language recognition,* (2020) IEEE/ACM Transactions on Audio Speech and Language Processing, 28, art. no. 2964953, pp. 682-695. DOI: 10.1109/TASLP.2020.2964953. ISSN: 23299290

10. Qi, J., Du, J., Marco Siniscalchi, S., Lee, C.-H., *A theory on deep neural network based vector-to-vector regression with an illustration of its expressive power in speech enhancement,* (2019) IEEE/ACM Transactions on Audio Speech and Language Processing, 27 (12), art. no. 2935891, pp. 1932-1943. DOI: 10.1109/TASLP. 2019.2935891. ISSN: 23299290

11. Li, W., Chen, N.F., Siniscalchi, S.M., Lee, C.-H., *Improving mispronunciation detection of Mandarin tones for non-native learners with soft-target tone labels and BLSTM-Based deep tone models,* (2019) IEEE/ACM Transactions on Audio Speech and Language Processing, 27 (12), art. no. 3370742, pp. 2012-2024. DOI: 10.1109/TASLP. 2019.2936755. ISSN: 23299290

12. Lin, J., Li, W., Gao, Y., Xie, Y., Chen, N.F., Siniscalchi, S.M., Zhang, J., Lee, C.-H., *Improving Mandarin Tone Recognition Based on DNN by Combining Acoustic and Articulatory Features Using Extended Recognition Networks,* (2018) Journal of Signal Processing Systems, 90 (7), pp. 1077-1087. DOI: 10.1007/s11265-018-1334-2. ISSN: 19398018

13. Wu, B., Yang, M., Li, K., Huang, Z., Siniscalchi, S.M., Wang, T., Lee, C.-H., *A reverberation-time-aware DNN approach leveraging spatial information for microphone array dereverberation,* (2017) Eurasip Journal on Advances in Signal Processing, 2017 (1), art. no. 81. DOI: 10.1186/s13634-017-0516-6. ISSN: 16876172

14. Wu, B., Li, K., Ge, F., Huang, Z., Yang, M., Siniscalchi, S.M., Lee, C.-H., *An end-to-end deep learning approach to simultaneous speech dereverberation and acoustic modeling for robust speech recognition,* (2017) IEEE Journal on Selected Topics in Signal Processing, 11 (8), art. no. 8051278, pp. 1289-1300. DOI: 10.1109/JSTSP. 2017.2756439. ISSN: 19324553

15. Huang, Z., Siniscalchi, S.M., Lee, C.-H., *Hierarchical Bayesian combination of plug-in maximum a posteriori decoders in deep neural networks-based speech recognition and speaker adaptation,* (2017) Pattern Recognition Letters, 98, pp. 1-7. DOI: 10.1016/j.patrec.2017.08.001. ISSN: 01678655

16. Siniscalchi, S.M., Salerno, V.M., *Adaptation to new microphones using artificial neural networks with trainable activation functions,* (2017) IEEE Transactions on Neural Networks and Learning Systems, 28 (8), art. no. 7452664, pp. 1959-1965. DOI: 10.1109/TNNLS.2016.2550532. ISSN: 2162237X

17. Hussain, T., Siniscalchi, S.M., Lee, C.-C., Wang, S.-S., Tsao, Y., Liao, W.-H., *Experimental study on extreme learning machine applications for speech enhancement,* (2017) IEEE Access, 5, pp. 25542-25554. DOI: 10.1109/ACCESS.2017.2766675. ISSN: 21693536

18. Huang, Z., Siniscalchi, S.M., Lee, C.-H., *Bayesian unsupervised batch and online speaker adaptation of activation function parameters in deep models for automatic speech recognition,* (2017) IEEE/ACM Transactions on Audio Speech and Language Processing, 25 (1), pp. 60-71. DOI: 10.1109/TASLP.2016.2621669. ISSN: 23299290

19. Huang, Z., Siniscalchi, S.M., Lee, C.-H., *A unified approach to transfer learning of deep neural networks with applications to speaker adaptation in automatic speech recognition,* (2016) Neurocomputing, 218, pp. 448-459. DOI: 10.1016/j.neucom.2016.09.018. ISSN: 09252312

20. Behravan, H., Hautamaki, V., Siniscalchi, S.M., Kinnunen, T., Lee, C.-H.. *I-Vector Modeling of Speech Attributes for Automatic Foreign Accent Recognition,* (2016) IEEE/ACM Transactions on Audio Speech and Language Processing, 24 (1), pp. 29-41. DOI: 10.1109/TASLP.2015.2489558. ISSN: 23299290

21. Siniscalchi, S.M., Svendsen, T., Lee, C.-H., *An artificial neural network approach to automatic speech processing,* (2014) Neurocomputing, 140, pp. 326-338. DOI: 10.1016/j.neucom.2014.03.005. ISSN: 09252312

22. Barone, R.E., Giuffrè, T., Siniscalchi, S.M., Morgano, M.A., Tesoriere, G., *Architecture for parking management in smart cities,* (2014) IET Intelligent Transport Systems, 8 (5), pp. 445-452. DOI: 10.1049/iet-its.2013.0045. ISSN: 1751956X

23. Siniscalchi, S.M., Li, J., Lee, C.-H., *Model-based margin estimation for hidden Markov model learning and generalization,* (2013) IET Signal Processing, 7 (8), pp. 704-709. DOI: 10.1049/iet-spr.2013.0036. ISSN: 17519675

24. Siniscalchi, S.M., Li, J., Lee, C.-H., *Hermitian polynomial for speaker adaptation of connectionist speech recognition systems,* (2013) IEEE Transactions on Audio, Speech and Language Processing, 21 (10), art. no. 6544616, pp. 2152-2161. DOI: 10.1109/TASL.2013.2270370. ISSN: 15587916

25. Siniscalchi, S.M., Yu, D., Deng, L., Lee, C.-H., *Speech recognition using long-span temporal patterns in a deep network model,* (2013) IEEE Signal Processing Letters, 20 (3), art. no. 6403509, pp. 201-204. DOI: 10.1109/LSP.2013.2237901. ISSN: 10709908

26. Siniscalchi, S.M., Svendsen, T., Lee, C.-H., *A bottom-up modular search approach to large vocabulary continuous speech recognition,* (2013) IEEE Transactions on Audio, Speech and Language Processing, 21 (4), art. no. 6384711, pp. 786-797. DOI: 10.1109/TASL.2012.2234115. ISSN: 15587916

27. Siniscalchi, S.M., Yu, D., Deng, L., Lee, C.-H., *Exploiting deep neural networks for detection-based speech recognition,* (2013) Neurocomputing, 106, pp. 148-157. DOI: 10.1016/j.neucom.2012.11.008. ISSN: 09252312

28. Lee, C.-H., Siniscalchi, S.M., *An information-extraction approach to speech processing: Analysis, detection, verification, and recognition,* (2013) Proceedings of the IEEE, 101 (5), art. no. 6457407, pp. 1089-1115. DOI: 10.1109/JPROC.2013.2238591. ISSN: 00189219

29. Siniscalchi, S.M., Reed, J., Svendsen, T., Lee, C.-H., *Universal attribute characterization of spoken languages for automatic spoken language recognition,*(2013) Computer Speech and Language, 27 (1), pp. 209-227. DOI: 10.1016/j.csl.2012.05.001. ISSN: 08852308

30. Siniscalchi, S.M., *Combining speech attribute detection and penalized logistic regression for phoneme recognition,* (2012) Neurocomputing, 93, pp. 10-18. DOI: 10.1016/j.neucom.2012.02.037. ISSN: 09252312

31. Siniscalchi, S.M., Lyu, D.-C., Svendsen, T., Lee, C.-H., *Experiments on cross-language attribute detection and phone recognition with minimal target-specific training data*, (2012) IEEE Transactions on Audio, Speech and Language Processing, 20 (3), art. no. 6016213, pp. 875-887. DOI: 10.1109/TASL.2011.2167610. ISSN: 15587916

32. Birkenes, O., Matsui, T., Tanabe, K., Siniscalchi, S.M., Myrvoll, T.A., Johnsen, M.H., *Penalized logistic regression with HMM log-likelihood regressors for speech recognition,* (2010) IEEE Transactions on Audio, Speech and Language Processing, 18 (6), art. no. 5299048, pp. 1440-1454. DOI: 10.1109/TASL.2009.2035151. ISSN: 15587916

33. Siniscalchi, S.M., Lee, C.-H., *A study on integrating acoustic-phonetic information into lattice rescoring for automatic speech recognition,* (2009) Speech Communication, 51 (11), pp. 1139-1153. DOI: 10.1016/j.specom.2009.05.004. ISSN: 01676393

34. Siniscalchi, S.M., Li, J., Pilato, G., Vassallo, G., Clements, M.A., Gentile, A., Sorbello, F., *Application of Eαnets to feature recognition of articulation manner in knowledge-based automatic speech recognition,* (2006) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 3931 LNCS, pp. 140-146. DOI: 10.1007/1173117721. ISSN: 03029743. ISBN: 3540331832; 9783540331834

35. Siniscalchi, S.M., Gennaro, F., Vitabile, S., Gentile, A., Sorbello, F., *Efficient FPGA implementation of a knowledge-based automatic speech classifier,* (2005) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 3820 LNCS, pp. 198-209. DOI: 10.1007/1159955521. ISSN: 03029743. ISBN: 3540308814; 9783540308812

International Peer-review Conferences

1. A. Hsie, C.H. H. Yang, S. M. SINISCALCHI, P.-Y. Chen, and Y. Tsao"Inference and Denoise: Causal Inference-based Neural Speech Enhancement," submitted to IEEE MLSP

2. H. Yen, P.-J. Fun, C.H. H. Yang, H. Hu, S. M. SINISCALCHI, P.-Y. Chen, and Y. Tsao, "Neural Model Reprogramming with Similarity Based Mapping for Low-Resource Spoken Command Recognition" INTERSPEECH 2023 (accepted)

3. S. Sarni, S. Cumani, S. M. SINISCALCHI, and A. Bottino, "Description and analysis of the KPT system for NIST Language Recognition Evaluation 2022" INTERSPEECH 2023 (accepted)

4. P.-J. Ku, C.-H. H. Yang, S. M. SINISCALCHI, and C.-H. Lee, "A Multi-dimensional Deep Structured State Space Approach to Speech Enhancement using Small-footprint Models" INTERSPEECH 2023 (accepted)

5. C.-W. Ho, C.-H. H. Yang, and S. M. SINISCALCHI, "Differentially Private Adapters for Parameter Efficient Acoustic Modeling" INTERSPEECH 2023 (accepted)

6. Yang, C.-H.H., Chen, I.-F., Stolcke, A., Siniscalchi, S.M., LEE, C.-H., *An Experimental Study on Private Aggregation of Teacher Ensemble Learning for End-to-End Speech Recognition,* (2023) 2022 IEEE Spoken Language Technology Workshop, SLT 2022, pp. 1074-1080. DOI: 10.1109/SLT54892.2023.10023326. ISBN: 9798350396904

7. Yang, C.-H.H., Qi, J., Siniscalchi, S.M., Lee, C.-H., *An Ensemble Teacher-Student Learning Approach with Poisson Sub-sampling to Differential Privacy Preserving Speech Recognition*, (2022) 2022 13th International Symposium on Chinese Spoken Language Processing, ISCSLP 2022, pp. 1-5. DOI: 10.1109/ISCSLP57327.2022.10038060. ISBN: 9798350397963

8. Wang, Q., Du, J., Zheng, S., Li, Y., Wang, Y., Wu, Y., Hu, H., Yang, C.-H.H., Siniscalchi, S.M., Wang, Y., Lee, C.-H., *A Study on Joint Modeling and Data Augmentation of Multi-Modalities for Audio-Visual Scene Classification*, (2022) 2022 13th International Symposium on Chinese Spoken Language Processing, ISCSLP 2022, pp. 453-457. DOI: 10.1109/ISCSLP57327.2022.10038206. ISBN: 9798350397963

9. Zhou, H., Du, J., Zou, G., Nian, Z., Lee, C.-H., Siniscalchi, S.M., Watanabe, S., Scharenborg, O., Chen, J., Xiong, S., Gao, J.-Q., *Audio-Visual Wake Word Spotting in MISP2021 Challenge: Dataset Release and Deep Analysis,* (2022) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2022-September, pp. 1111-1115. DOI: 10.21437/Interspeech.2022-10650. ISSN: 2308457X

10. Chen, H., Du, J., Dai, Y., Lee, C.-H., Siniscalchi, S.M., Watanabe, S., Scharenborg, O., Chen, J., Yin, B.-C., Pan, J., *Audio-Visual Speech Recognition in MISP2021 Challenge: Dataset Release and Deep Analysis*, (2022) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2022-September, pp. 1766-1770. DOI: 10.21437/Interspeech.2022-10483. ISSN: 2308457X

11. Hu, H., Siniscalchi, S.M., Yang, C.-H.H., Lee, C.-H., *A Variational Bayesian Approach To Learning Latent Variables For Acoustic Knowledge Transfer*, (2022) ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings, 2022-May, pp. 1041-1045. DOI: 10.1109/ICASSP43922.2022.9746076. ISSN: 15206149 ISBN: 9781665405409

12. Chen, H., Zhou, H., Du, J., Lee, C.-H., Chen, J., Watanabe, S., Siniscalchi, S.M., Scharenborg, O., Liu, D.-Y., Yin, B.-C., Pan, J., Gao, J.-Q., Liu, C., *The First Multimodal Information Based Speech Processing (MISP) Challenge: Data, Tasks, Baselines And Results*, (2022) ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings, 2022-May, pp. 9266-9270. DOI: 10.1109/ICASSP43922.2022.9746683. ISSN: 15206149. ISBN: 9781665405409

13. Yang, C.-H.H., Siniscalchi, S.M., Lee, C.-H., *PATE-AAE: Incorporating adversarial autoencoder into private aggregation of teacher ensembles for spoken command classification*, (2021) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 3, pp. 1743-1747. DOI: 10.21437/Interspeech.2021-640. ISSN: 2308457X. ISBN: 9781713836902

14. Shahrebabaki, A.S., Siniscalchi, S.M., Svendsen, T., *Raw speech-to-articulatory inversion by temporal filtering and decimation,* (2021) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 4, pp. 3106-3110. DOI: 10.21437/Interspeech.2021-1429. ISSN: 2308457X. ISBN: 9781713836902

15. Shahrebabaki, A.S., Olfati, N., Imran, A.S., Johnsen, M.H., Siniscalchi, S.M., Svendsen, T., *A Two-Stage Deep Modeling Approach to Articulatory Inversion*, (2021) ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing, 2021-June, pp. 6453-6457. DOI: 10.1109/ICASSP39728.2021.9413742. ISSN: 15206149

16. Hu, H., Yang, C.-H.H., Xia, X., Bai, X., Tang, X., Wang, Y., Niu, S., Chai, L., Li, J., Zhu, H., Bao, F., Zhao, Y., Siniscalchi, S.M., Wang, Y., Du, J., Lee, C.-H., *A two-stage approach to device-robust acoustic scene classification,* (2021) ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings, 2021-June, pp. 845-849. DOI: 10.1109/ICASSP39728.2021.9414835. ISSN: 15206149

17. Yang, C.-H.H., Qi, J., Chen, S.Y.-C., Chen, P.-Y., Siniscalchi, S.M., Ma, X., Lee, C.-H., *Decentralizing feature extraction with quantum convolutional neural network for automatic speech recognition,* (2021) ICASSP, IEEE

International Conference on Acoustics, Speech and Signal Processing - Proceedings, 2021-June, pp. 6523-6527. DOI: 10.1109/ICASSP39728.2021.9413453. ISSN: 15206149

18. Shahrebabaki, A.S., Siniscalchi, S.M., Salvi, G., Svendsen, T., *A DNN based speech enhancement approach to noise robust acoustic-to-articulatory inversion*, (2021) Proceedings - IEEE International Symposium on Circuits and Systems, 2021-May, art. no. 9401290. DOI: 10.1109/ISCAS51556.2021.9401290. ISSN: 02714310. ISBN: 9781728192017

19. Wang, S., Li, W., Siniscalchi, S. M., Lee, C.-H., *A cross-task transfer learning approach to adapting deep speech enhancement models to unseen background noise using paired senone classifiers,* (2020) ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing, 2020-May, art. no. 9054543, pp. 6219-6223. DOI: 10.1109/ICASSP40776.2020.9054543. ISSN: 15206149. ISBN: 9781509066315

20. Qi, J., Hu, H., Wang, Y., Yang, C.-H.H., Marco Siniscalchi, S., Lee, C.-H., *Tensor-To-Vector Regression for Multi-Channel Speech Enhancement Based on Tensor-Train Network,* (2020) ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing, 2020-May, art. no. 9052938, pp. 7504-7508. DOI: 10.1109/ICASSP40776.2020.9052938. ISSN: 15206149. ISBN: 9781509066315

21. Qi, J., Ma, X., Lee, C.-H., Du, J., Siniscalchi, S.M., *Performance Analysis for Tensor-Train Decomposition to Deep Neural Network Based Vector-to-Vector Regression* (2020) 2020 54th Annual Conference on Information Sciences and Systems, CISS 2020, art. no. 9086251. DOI: 10.1109/CISS48834.2020.1570617364. ISBN: 9781728140841

22. Shahrebabaki, A.S., Olfati, N., Siniscalchi, S.M., Salvi, G., Svendsen, T., *Transfer learning of articulatory information through phone information*, (2020) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2020-October, pp. 2877-2881. DOI: 10.21437/Interspeech.2020-1139. ISSN: 2308457X

23. Shahrebabaki, A.S., Siniscalchi, S.M., Salvi, G., Svendsen, T., *Sequence-to-sequence articulatory inversion through time convolution of sub-band frequency signals*, (2020) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2020-October, pp. 2882-2886. DOI: 10.21437/Interspeech.2020-1140. ISSN: 2308457X

24. Hu, H., Siniscalchi, S.M., Wang, Y., Lee, C.-H., *Relational teacher student learning with neural label embedding for device adaptation in acoustic scene classification*, (2020) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2020-October, pp. 1196-1200. DOI: 10.21437/Interspeech.2020-2038. ISSN: 2308457X

25. Hu, H., Siniscalchi, S.M., Wang, Y., Bai, X., Du, J., Lee, C.-H., *An acoustic segment model based segment unit selection approach to acoustic scene classification with partial utterances,* (2020) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2020-October, pp. 1201-1205. DOI: 10.21437/Interspeech.2020-2044. ISSN: 2308457X

26. Qi, J., Hu, H., Wang, Y., Yang, C.-H.H., Siniscalchi, S.M., Lee, C.-H., *Exploring deep hybrid tensor-to-vector network architectures for regression based speech enhancement,* (2020) Proceedings of the Annual Conference of the International Speech Communication Association, INTERSPEECH, 2020-October, pp. 76-80. DOI: 10.21437/Interspeech.2020-1900. ISSN: 2308457X

27. Hussain, T., Tsao, Y., Wang, H.-M., Wang, J.-C., Siniscalchi, S.M., Liao, W.-H., *Compressed multimodal hierarchical extreme learning machine for speech enhancement*, (2019) 2019 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference, APSIPA ASC 2019, art. no. 9023012, pp. 678-683. DOI: 10.1109/APSIPAASC47483.2019.9023012. ISBN: 9781728132488

28. Hussain, T., Tsao, Y., Wang, H.-M., Wang, J.-C., Siniscalchi, S.M., Liao, W.-H., *Audio-visual speech enhancement using hierarchical extreme learning machine*, (2019) European Signal Processing Conference, 2019-September, . DOI: 10.23919/EUSIPCO.2019.8903105. ISSN: 22195491. ISBN: 9789082797039

29. Crus-Wang, Student-Teachers Teaching, (2019) ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing, 2019-May, art. no. 8682868, pp. 6560-6564. DOI: 10.1109/ICASSP.2019.8682868. ISSN: 15206149. ISBN: 9781479981311

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