Publication List of Prof. Berlin Chen (陳柏琳教授)

(A) Journal Papers (* corresponding author)

- [A1] Hsin-Ju Hsieh, <u>Berlin Chen</u>*, Jeih-weih Hung, "Histogram equalization of contextual statistics of speech features for robust speech recognition," to appear in *Multimedia Tools and Applications*. (SCI)
- [A2] Hsuan-Sheng Chiu, Kuan-Yu Chen, <u>Berlin Chen</u>*, "Leveraging topical and positional cues for language modeling in speech recognition," *Multimedia Tools and Applications*, Vol. 72, No. 2, pp. 1465-1481, September 2014. (SCI)
- [A3] Berlin Chen*, Yi-Wen Chen, Kuan-Yu Chen, Hsin-Min Wang, Kuen-Tyng Yu, "Enhancing query formulation for spoken document retrieval," Special Issue on Emerging Technologies and Applications of Artificial Intelligence, *Journal of Information Science and Engineering*, Vol. 30, No. 3, pp. 553-569, May 2014. (SCI)
- [A4] <u>Berlin Chen</u>*, Kuan-Yu Chen, "Leveraging relevance cues for language modeling in speech recognition," *Information Processing & Management*, Vol. 49, No. 4, pp. 807-816, 2013. (SSCI, SCI)
- [A5] <u>Berlin Chen</u>*, Shih-Hsiang Lin, Yu-Mei Chang, Jia-Wen Liu, "Extractive speech summarization using evaluation metric-related training criteria," *Information Processing & Management*, Vol. 49, No. 1, pp. 1-12, 2013. (SSCI, SCI)
- [A6] <u>Berlin Chen</u>*, Kuan-Yu Chen, Pei-Ning Chen, Yi-Wen Chen, "Spoken document retrieval with unsupervised query modeling techniques," *IEEE Transactions on Audio, Speech and Language Processing*, Vol. 20, No. 9, pp. 2602-2612, 2012. (SCI)
- [A7] <u>Berlin Chen</u>*, Shih-Hsiang Lin, "A risk-aware modeling framework for speech summarization," *IEEE Transactions on Audio, Speech and Language Processing*, Vol. 20, No. 1, pp. 199-210, 2012. (SCI)
- [A8] Kuan-Yu Chen, Hsin-min Wang, <u>Berlin Chen</u>*, "Spoken document retrieval leveraging unsupervised and supervised topic modeling techniques," *IEICE Transactions on Information and Systems*, Vol. E95-D, No.5, pp. 1195-1205, May 2012. (SCI)
- [A9] Shih-Hsiang Lin, <u>Berlin Chen</u>, "A comparative study of methods for topic modeling in spoken document retrieval," *International Journal of Computational Linguistics and Chinese Language Processing*, Vol. 17, No. 1, pp. 65-86, March 2012.
- [A10] Hsin-Ju Hsieh, Jeih-weih Hung, <u>Berlin Chen</u>, "Speech recognition Leveraging histogram equalization methods," *International Journal of Computational Linguistics and Chinese Language Processing*. Vol. 17, No. 4, pp. 69-84, November 2012. (in Chinese)
- [A11] Shih-Hsiang Lin, Yao-Ming Yeh, <u>Berlin Chen*</u>, "Leveraging Kullback-Leibler divergence measures and information-rich cues for speech summarization," *IEEE Transactions on Audio, Speech and Language Processing*, Vol. 19, No. 4, pp.871-882, May 2011. (SCI)
- [A12] <u>Berlin Chen</u>*, Wei-Hau Chen, Shih-Hsiang Lin, Wen-Yi Chu, "Robust speech recognition using spatial-temporal feature distribution characteristics," *Pattern Recognition Letters*, Vol. 32, No. 7, pp. 919-926, 1 May 2011. (SCI)
- [A13] <u>Berlin Chen</u>*, Shih-Hung Liu, Fang-Hui Chu, "Training data selection for improving discriminative training of acoustic models," *Pattern Recognition Letters*, Vol. 30, No. 13, pp. 1228-1235, October 2009. (SCI)
- [A14] <u>Berlin Chen</u>*, "Word topic models for spoken document retrieval and transcription," *ACM Transactions on Asian Language Information Processing*, Vol. 8, No.1, pp. 2:1-2:27, March 2009. (EI)
- [A15] Shih-Hsiang Lin, Berlin Chen*, Hsin-Min Wang, "A comparative study of probabilistic

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- [A16] Shih-Hsiang Lin, <u>Berlin Chen*</u>, Yao-Ming Yeh, "Exploring the use of speech features and their corresponding distribution characteristics for robust speech recognition," *IEEE Transactions on Audio, Speech and Language Processing*, Vol. 17. No.1, pp. 84-94, January 2009. (SCI)
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- [A20] Shih-Hsiang Lin, Yao-Ming Yeh, <u>Berlin Chen</u>, "A comparative study of histogram equalization (HEQ) for robust speech recognition," *International Journal of Computational Linguistics and Chinese Language Processing*, Vol. 12, No. 2, pp. 217-238, June 2007.
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- [A22] <u>Berlin Chen*</u>, "Voice retrieval of mandarin broadcast news speech," *International Journal of Pattern Recognition and Artificial Intelligence*, Vol. 20, No. 1, pp. 91-109, February 2006. (SCI)
- [A23] <u>Berlin Chen</u>*, "Exploring the use of latent topical information for statistical Chinese spoken document retrieval," *Pattern Recognition Letters*, Vol. 27, No. 1, pp. 9-18, January 2006. (SCI)
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- [A29] Helen Meng, <u>Berlin Chen</u>, Sanjeev Khudanpur, Gina-Anne Levow, Wai-kit Lo, Douglas Oard, Patrick Schone, Karen Tang, Hsin-min Wang, and Jianqiang Wang, "Mandarin–English Information (MEI): Investigating translingual speech retrieval," *Computer Speech and Language*, Vol. 18, No. 2, pp. 163-179, April 2004. (SCI)
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(B) Book Chapters

- [B1] <u>Berlin Chen</u>*, Shih-Hsiang Lin, "Distribution-based feature compensation for robust speech recognition," Chapter 10 of the book "Recent Advances in Robust Speech Recognition Technology," pp. 155-168, edited by Javier Ramez, J.M. Griz, JosC. Segura, Bentham Science Publishers, 2011.
- [B2] <u>Berlin Chen</u>*, Hsin-min Wang, Lin-shan Lee, "Spoken document retrieval and summarization," Chapter 13 of the book "*Advances in Chinese Spoken Language Processing*," edited by C.-H. Lee, H. Li, L.-S. Lee, R.-H. Wang and Q. Huo, World Scientific Publisher, December 2006.

(C) Refereed International Conference Papers

- [C1] Hsin-Ju Hsieh, <u>Berlin Chen</u> and Jeih-weih Hung, "Spatial histogram equalization of complex-valued acoustic spectra in modulation domain for noise-robust speech recognition," 2014 APSIPA Annual Summit and Conference (*APSIPA ASC 2014*), Siem Reap, city of Angkor Wat, Cambodia, December 9-12, 2014.
- [C2] Shih-Hung Liu, Kuan-Yu Chen, <u>Berlin Chen</u>, Ea-Ee Jan, Hsin-Min Wang, Hsu-Chun Yen, Wen-Lian Hsu, "A margin-based discriminative modeling approach for extractive speech summarization," 2014 APSIPA Annual Summit and Conference (*APSIPA ASC 2014*), Siem Reap, city of Angkor Wat, Cambodia, December 9-12, 2014.
- [C3] Kuan-Yu Chen, Shih-Hung Liu, <u>Berlin Chen</u>, Hsin-Min Wang, Wen-Lian Hsu, Hsin-Hsi Chen, Ea-Ee Jan, "Leveraging effective query modeling techniques for speech recognition and summarization," the Conference on Empirical Methods on Natural Language Processing (*EMNLP 2014*), October 25-29, Doha, Qatar, 2014. (Short Paper)
- [C4] Yu-Chen Kao, Yi-Ting Wang, <u>Berlin Chen</u>, "Effective modulation spectrum factorization for robust speech recognition," the 15th Annual Conference of the

- International Speech Communication Association (*Interspeech 2014*), pp. 2724-2728, Singapore, September 14-18, 2014.
- [C5] Shih-Hung Liu, Kuan-Yu Chen, Yu-Lun Hsieh, <u>Berlin Chen</u>, Hsin-Min Wang, Hsu-Chun Yen, Wen-Lian Hsu, "Enhanced language modeling for extractive speech summarization with sentence relatedness information," the 15th Annual Conference of the International Speech Communication Association (*Interspeech 2014*), pp. 1865-1869, Singapore, September 14-18, 2014.
- [C6] Kuan-Yu Chen, Shih-Hung Liu, <u>Berlin Chen</u>, Hsin-Min Wang, Wen-Lian Hsu and Hsin-Hsi Chen, "A recurrent neural network language modeling framework for extractive speech summarization," the IEEE International Conference on Multimedia & Expo (*ICME 2014*), Chengdu, China, July 14-18, 2014. (Full Paper) (EI)
- [C7] Shih-Hung Liu, Kuan-Yu Chen, Yu-Lun Hsieh, <u>Berlin Chen</u>, Hsin-Min Wang, Hsu-Chun Yen, Wen-Lian Hsu, "Effective pseudo-relevance feedback for language modeling in extractive speech summarization," the 39th IEEE International Conference on Acoustics, Speech, and Signal Processing (*ICASSP 2014*), pp. 3226-3230, Florence, Italy, May 4-9, 2014. (EI)
- [C8] Kuan-Yu Chen, Hung-Shin Lee, Hsin-Min Wang, <u>Berlin Chen</u>, Hsin-Hsi Chen, "I-vector based language modeling for spoken document retrieval," the 39th IEEE International Conference on Acoustics, Speech, and Signal Processing (*ICASSP 2014*), pp. 7083-7087, Florence, Italy, May 4-9, 2014. (EI)
- [C9] Yu-Chen Kao, <u>Berlin Chen</u>, "Distribution-based feature normalization for robust speech recognition leveraging context and dynamics cues," the 14th Annual Conference of the International Speech Communication Association (*Interspeech 2013*), Lyon, France, August 25-29, 2013. (EI)
- [C10] Hsin-Ju Hsieh, <u>Berlin Chen</u>, Jeih-weih Hung, "Histogram equalization of real and imaginary modulation spectra for noise-robust speech recognition," the 14th Annual Conference of the International Speech Communication Association (*Interspeech 2013*), Lyon, France, August 25-29, 2013. (EI)
- [C11] Yi-Wen Chen, Bo-Han Hao, Kuan-Yu Chen, <u>Berlin Chen</u>, "Incorporating proximity information for relevance language modeling in speech recognition," the 14th Annual Conference of the International Speech Communication Association (*Interspeech 2013*), Lyon, France, August 25-29, 2013. (EI)
- [C12] <u>Berlin Chen</u>, Hao-Chin Chang, Kuan-Yu Chen, "Sentence modeling for extractive speech summarization," IEEE International Conference on Multimedia & Expo (*ICME 2013*), San Jose, California, USA, July 15-19, 2013. (Full Paper) (EI)
- [C13] Yi-Wen Chen, Kuan-Yu Chen, Hsin-Min Wang, <u>Berlin Chen</u>, "Effective pseudo-relevance feedback for spoken document retrieval," the 38th IEEE International Conference on Acoustics, Speech, and Signal Processing (*ICASSP 2013*), Vancouver, Canada, May 26-31, 2013. (EI)
- [C14] Kuan-Yu Chen, Hsin-Min Wang, <u>Berlin Chen</u>, Hsin-Hsi Chen, "Weighted matrix factorization for spoken document retrieval," the 38th IEEE International Conference on Acoustics, Speech, and Signal Processing (*ICASSP 2013*), Vancouver, Canada, May 26-31, 2013. (EI)
- [C15] Hsin-Ju Hsieh, Jeih-weih Hung, <u>Berlin Chen</u>, "Exploring joint equalization of spatial-temporal contextual statistics of speech features for robust speech recognition," the 13th Annual Conference of the International Speech Communication Association (*Interspeech 2012*), Portland, Oregon, USA, September 9-13, 2012. (EI)
- [C16] Kuan-Yu Chen, Hao-Chin Chang, Berlin Chen, Hsin-Min Wang, "Word relevance

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- [C20] Ea-Ee Jan, Niyu Ge, Shih-Hsiang Lin and <u>Berlin Chen</u>, "An effective and robust framework for transliteration exploration," the 5th International Joint Conference on Natural Language Processing (*IJCNLP 2011*), pp. 1332-1340, Chiang Mai, Thailand, November 8-13, 2011.
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- [C22] Pei-Ning Chen, Kuan-Yu Chen, <u>Berlin Chen</u>, "Leveraging relevance cues for improved spoken document retrieval," the 12th Annual Conference of the International Speech Communication Association (*Interspeech 2011*), pp. 929-932, Florence, Italy, August 28-31, 2011. (EI)
- [C23] Berlin Chen, Jia-Wen Liu, "Discriminative language modeling for speech recognition with relevance information," IEEE International Conference on Multimedia & Expo (ICME 2011), Barcelona, Spain, July 11-15, 2011. (Full Paper) (EI)
- [C24] Kuan-Yu Chen, <u>Berlin Chen</u>, "Relevance language modeling for speech recognition," the 36th IEEE International Conference on Acoustics, Speech, and Signal Processing (*ICASSP 2011*), pp. 5568-5571, Prague, Czech Republic, May 22-27, 2011. (EI)
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- [C38] Shih-Hsiang Lin, Yueng-Tien Lo, Yao-Ming Yeh, <u>Berlin Chen</u>, "Hybrids of supervised and unsupervised models for extractive speech summarization," the 10th Annual Conference of the International Speech Communication Association (*Interspeech 2009*), pp. 1507-1510, Brighton, U.K., September 6-10, 2009.
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- [C43] Wei-Hau Chen, Shih-Hsiang Lin, <u>Berlin Chen</u>, "Exploiting spatial-temporal feature distribution characteristics for robust speech recognition," the 9th Annual Conference of the International Speech Communication Association (*Interspeech 2008*), pp. 2204-2207, Brisbane, Australia, September 22-26, 2008.
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- [C49] Shih-Hsiang Lin, Yao-Ming Yeh, <u>Berlin Chen</u>, "Cluster-based polynomial-fit histogram equalization (CPHEQ) for robust speech recognition," the 8th Annual Conference of the International Speech Communication Association (*Interspeech 2007*), pp. 1054-1057, Antwerp, Belgium, August 27-31, 2007. (EI)
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- [C51] Yi-cheng Pan, Hung-lin Chang, <u>Berlin Chen</u>, Lin-shan Lee, "Subword-based position specific posterior lattices (S-PSPL) for indexing speech information," the 8th Annual Conference of the International Speech Communication Association (*Interspeech 2007*), pp. 318-321, Antwerp, Belgium, August 27-31, 2007. (EI)
- [C52] Berlin Chen, Yi-Ting Chen, "Word topical mixture models for extractive spoken document summarization," IEEE International Conference on Multimedia & Expo (ICME 2007), pp. 52-55, Beijing, China, July 2-5, 2007. (EI)
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- [C54] Shih-Hsiang Lin, Shih-Hung Liu, Yao-Ming Yeh, <u>Berlin Chen</u>, "Improved histogram equalization (HEQ) for robust speech recognition," IEEE International Conference on Multimedia & Expo (*ICME 2007*), pp. 2234-2237, Beijing, China, July 2-5, 2007. (EI)

- [C55] Hsuan-Sheng Chiu, <u>Berlin Chen</u>, "Word topical mixture models for dynamic language model adaptation," the 32nd IEEE International Conference on Acoustics, Speech, and Signal Processing (*ICASSP 2007*), Vol. IV, pp. 169-172, Hawaii, USA, April 15-20, 2007. (EI)
- [C56] YT Yen, <u>B Chen</u>, CL Shyu, YC Li, CY Hsu, "Applying clinical ontology for biomedical information retrieval," the 12th World Congress on Health (Medical) Informatics (*Medinfo 2007*), Brisbane, Australia, August 20-24, 2007.
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(E) Technical Transfers (技術與程式移轉、授權)

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(F) Dissertation/Thesis

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