

Publications of Jonas Samuelsson

Reviewed Journal Papers

1. J. Samuelsson and P. Hedelin, “Recursive coding of spectrum parameters,” *IEEE Transactions on Speech and Audio Processing*, vol. 9, no. 5, pp. 492–503, 2001. *,**
2. J. Lindblom and J. Samuelsson, “Bounded support Gaussian mixture modeling of speech spectra,” *IEEE Transactions on Speech and Audio Processing*, vol. 11, no. 1, pp. 88–99, 2003. *,**
3. J. Samuelsson, “Multidimensional companding quantization of the Gaussian source,” *IEEE Transactions on Information Theory*, vol. 49, no. 5, pp. 1343–1351, 2003. *,**
4. S. Srinivasan, J. Samuelsson, and W.B. Kleijn, “Codebook driven short-term predictor parameter estimation for speech enhancement,” *IEEE Transactions on Speech and Audio Processing*, Oct. 2004, Accepted for publication. *
5. V. Grancharov, J. Samuelsson, and W.B. Kleijn, “On causal algorithms for speech enhancement,” *IEEE Transactions on Speech and Audio Processing*, Jan. 2005, Accepted for publication. *
6. J. Samuelsson and J. Plasberg, “Multiple description coding based on Gaussian mixture models,” *IEEE Signal Processing Letters*, vol. 12, no. 6, pp. 449–552, June 2005. *,**

Reviewed Conference Papers

7. J. Samuelsson, J. Skoglund, and J. Lindén, “Controlling spectral dynamics in LPC quantization for perceptual enhancement,” in *Proc. 31st Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, 1997, pp. 1066–1070.
8. P. Hedelin, J. Skoglund, and J. Samuelsson, “Performance bounds for LPC spectrum quantization,” in *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Phoenix Arizona, USA, 1999, vol. 2, pp. 677–680. *,**
9. J. Samuelsson and P. Hedelin, “Recursive coding of spectrum parameters,” in *Proceedings IEEE Workshop on Speech Coding for Telecommunications*, Porvoo, Finland, June 1999, pp. 37–39. **
10. F. Nordén, J. Samuelsson, and P. Hedelin, “Recursive LPC spectrum coding – a classified VQ approach,” in *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Istanbul, Turkey, 2000. *,**
11. J. Lindblom, J. Samuelsson, and P. Hedelin, “Model based spectrum prediction,” in *Proceedings IEEE Workshop on Speech Coding for Telecommunications*, 2000, pp. 117–119. *,**

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12. J. Lindblom and J. Samuelsson, "Speech spectrum modeling - applied to spectrum coding and prediction," in *Proc. 34th Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, CA, 2000. **
 13. S. Srinivasan, J. Samuelsson, and W.B. Kleijn, "Speech enhancement using a-priori information," in *Proc. Eurospeech*, 2003.
 14. A. Liria, M. Masi, J.A. Muriel, M. Palou, R. Aichner, and J. Samuelsson, "Acoustic quality enhancement in mobile radio communications applications for public emergency services," in *XIII Jornadas Telecom I+D*, Madrid, Spain, November 2003.
 15. S. Srinivasan, J. Samuelsson, and W. B. Kleijn, "Estimation of short-term predictor parameters for coding and enhancement of noisy speech," in *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Montreal, Canada, May 2004.
 16. V. Grancharov, J. Samuelsson, and W.B. Kleijn, "Noise-dependent postfiltering," in *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Montreal, Canada, May 2004.
 17. J. Samuelsson, "Waveform quantization of speech using Gaussian mixture models," in *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Montreal, Canada, May 2004. *,**
 18. S. Srinivasan, J. Samuelsson, and W. B. Kleijn, "Speech enhancement using a-priori information with classified noise codebooks," in *Proc. of EUSIPCO*, Vienna, Austria, 2004.
 19. V. Grancharov, S.Srinivasan, J. Samuelsson, and W.B. Kleijn, "Robust spectrum quantization for LP parameter enhancement," in *Proc. of EUSIPCO*, Vienna, Austria, 2004.
 20. S. Srinivasan, J. Samuelsson, and W.B. Kleijn, "Codebook-based bayesian speech enhancement," in *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Mar. 2005, vol. 1, pp. 1077–1080.
 21. V. Grancharov, J. Samuelsson, and W.B. Kleijn, "Improved kalman filtering for speech enhancement," in *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Mar. 2005, vol. 1, pp. 1109–1112.
 22. J. Samuelsson, "Toward optimal mixture model based vector quantization," in *Proceedings of the Fifth International Conference on Information, Communications and Signal Processing (ICICS)*, Bangkok, Dec. 2005.

Patents

23. V. Grancharov, J. Samuelsson, and W.B. Kleijn, "Noise dependent postfiltering in speech coding," Pat. app. no. PCT/SE03/01657, pending.

Other Publications

24. Jonas Samuelsson, *Towards Asymptotic Vector Quantization*, Ph.D. thesis, Chalmers University of Technology, Gothenburg, Sweden, 2001.