

## Ioan Tabus - Publication list

### A1. Peer-reviewed scientific articles in journals

- [1] P. Helin, P. Astola, B. Rao, I. Tabus, "Minimum description length sparse modeling and region merging for lossless plenoptic image compression," in *IEEE Journal of Selected Topics in Signal Processing*, October 2017 doi: 10.1109/JSTSP.2017.2737967.
- [2] H. Astola and I. Tabus, "On the linear programming bound for linear Lee codes". *Springer-Plus*, 5:246, pp. 1-13, 12 April 2016.
- [3] H. Astola and I. Tabus, Sharpening the linear programming bound for linear Lee codes. *Electronics Letters*, Volume 51, Issue 6, pp. 492–494, 19 March 2015.
- [4] I. Tabus, Patch-based conditional context coding of stereo disparity images. *IEEE Signal Processing Letters*, 21:10, pp. 1220–1224, Oct. 2014.
- [5] I. Tabus, I. Schiopu, J. Astola. Context coding of depth map images under the piecewise-constant image model representation. *IEEE Transactions on Image Processing*, 22:11, pp. 4195–4210, 2013.
- [6] I. Schiopu, I. Tabus. "Lossy depth image compression using greedy rate-distortion slope optimization". *IEEE Signal Processing Letters*, 20:11, pp. 1066-1069, 2013.
- [7] F. Ghido I. Tabus. "Sparse modeling for lossless audio compression". *IEEE Transactions on Audio, Speech, and Language Processing*, 21:1, pp. 14–28, 2013.
- [8] B. Dumitrescu, A. Onose, P. Helin, I. Tabus. "Greedy Sparse RLS". *IEEE Transactions on Signal Processing*, 60:5, pp. 2194–2207, 2012.
- [9] A. Liski, I. Tabus, R. Sund, and U. Hakkinen. "Variable Selection by sNML Criterion in Logistic Regression with an Application to a Risk-Adjustment Model for Hip Fracture Mortality". *Journal of Data Science*, vol. 10, pp. 321–343, 2012.
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- [11] J. Dougherty, I. Tabus and J. Astola. "Inference of Gene Regulatory Networks Based on a Universal Minimum Description Length". *EURASIP Journal of Bioinformatics and Systems Biology*. Article ID 482090, 11 pages, doi:10.1155/2008/482090, 2008.
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- [13] G. Korodi and I. Tabus, "Compression of annotated nucleotide sequences" *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, Volume: 4, Issue: 3, pp. 447–457, July-Sept. 2007

- [14] K.N.Mendes, D. Nicorici, D. Cogdell, I. Tabus, O.Yli-Harja, R.Guerra, S.R. Hamilton, and W. Zhang "Analysis of Signaling Pathways in 90 Cancer Cell Lines by Protein Lysate Array", *J. Proteome Res.*, 2007, 6 (7), pp. 2753–2767, 2007.
- [15] G. Korodi, I. Tabus, J. Rissanen and J. Astola. "DNA sequence compression based on the normalized maximum likelihood model". *IEEE Signal Processing Magazine*, pp. 47–53, January 2007.
- [16] M. Akkiprik, D. Nicorici, D. Codgdell, Y. J. Jia, A. Hategan, I. Tabus, O. Yli-Harja, D. Yu, A. Sahin, W. Zhang. "Dissection of Signaling Pathways in Fourteen Breast Cancer Cell Lines Using Reverse-Phase Protein Lysate Microarray". *Technology in Cancer Research and Treatment*, Vol. 5, Number 6, December 2006.
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## A2. Peer-reviewed scientific articles in research books

- [47] J. Hukkanen, E. Sabo, and I. Tabus, “MDL based structure selection of union of ellipse models for scaled and smoothed histological images,” in *Advances in Intelligent Control Systems and Computer Science*, ser. Advances in Intelligent Systems and Computing, I. Dumitrache, Ed. Springer Berlin Heidelberg, 2013, vol. 187, pp. 77–89.
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- [49] J. Rissanen, P. Myllymäki, T. Roos, I. Tabus, and K. Yamanishi (Editors), Proceedings of the Fourth Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2011), Series of Publications C, Report C-2011-45, Department of Computer Science, University of Helsinki, 2011.
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### A.3. Peer-reviewed scientific articles in conference proceedings

- [61] I. Tabus, P. Helin, P. Astola, “Lossy Compression of Lenslet Images from Plenoptic Cameras Combining Sparse Predictive Coding and JPEG 2000”, 2017 International Conference on Image Processing, Beijing, September 2017.
- [62] I. Tabus, P. Helin, “Microlens Image Sparse Modelling for Lossless Compression of Plenoptic Camera Sensor Images”, Eusipco, Kos, August 2017.
- [63] P. Astola, I. Tabus, “Lossless Compression of High Resolution Disparity Map Images”, 2017 International Symposium on Signals, Circuits and Systems (ISSCS), Iasi, Romania, pp.1-4, July 2017.
- [64] P. Astola, M. Aref, J. Mattila, J. Vihonen, I. Tabus, “Object Detection in Robotic Applications for Real-time Localization Using Semi-Unknown Objects”, 2017 International Conference on Telecommunications and Signal Processing (TSP), Barcelona, July, 2017.
- [65] P. Helin, P. Astola, B. Rao, and I. Tabus, “Sparse modelling and predictive coding of subaperture images for lossless plenoptic image compression”, in 3DTV-Conference: The True Vision - Capture, Transmission and Display of 3D Video (3DTV-CON), pp.1-4, Hamburg, Germany, 4-6 July 2016.

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- [73] B. Dumitrescu, C. Rusu, I. Tabus, J. Astola, “Low-complexity robust DOA estimation”, in 2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp.2794-2798, 19-24 April 2015.
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- [76] I. Tabus, P. Astola, “Sparse prediction for compression of stereo color images conditional on constant disparity patches,” 3DTV-Conference: The True Vision - Capture, Transmission and Display of 3D Video, pp.1–4, 2-4 July 2014.
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- [79] P. Helin, B. Dumitrescu, J. Astola and I. Tabus. “Likelihood based combining of subband estimates for wideband DOA”. The 8th International Symposium on Image and Signal Processing and Analysis (ISPA 2013), Trieste, Italy, September 4-6, 2013.
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- [87] I. Schiopu and I. Tabus, “MDL Segmentation and Lossless Compression of Depth Images”, Fourth Workshop on Information Theoretic Methods in Science and Engineering (WITMSE), Helsinki, Finland, August 7-10, 2011.
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- [111] G. Korodi, I. Tabus, “On Improving the PPM Algorithm”, 3rd International Symposium on Communications, Control and Signal Processing, ISCCSP 2008, March 12-14, St. Julians, Malta, pp. 1450–1453, 2008.
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