

Vladimir Tourbabin

List of publications

January 2017

Journal articles

- [1] V. Tourbabin and B. Rafaely, “**Direction of Arrival Estimation Using Microphone Array Processing for Moving Humanoid Robots,**” *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 23, no. 11, pp. 2046–2058, Nov. 2015. DOI: [10.1109/TASLP.2015.2464671](https://doi.org/10.1109/TASLP.2015.2464671).
- [2] V. Tourbabin and B. Rafaely, “**On the Consistent Use of Space and Time Conventions in Array Processing,**” *Acta Acustica united with Acustica*, vol. 101, no. 3, pp. 470–473, 2015. DOI: [10.3813/AAA.918843](https://doi.org/10.3813/AAA.918843).
- [3] V. Tourbabin and B. Rafaely, “**Theoretical Framework for the Optimization of Microphone Array Configuration for Humanoid Robot Audition,**” *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 22, no. 12, pp. 1803–1814, Dec. 2014. DOI: [10.1109/TASLP.2014.2351133](https://doi.org/10.1109/TASLP.2014.2351133).
- [4] V. Tourbabin, M. Agmon, B. Rafaely, and J. Tabrikian, “**Optimal Real-Weighted Beamforming With Application to Linear and Spherical Arrays,**” *IEEE Transactions on Audio, Speech, and Language Processing*, vol. 20, no. 9, pp. 2575–2585, Nov. 2012. DOI: [10.1109/TASL.2012.2208626](https://doi.org/10.1109/TASL.2012.2208626).

Conference proceedings

- [5] V. Tourbabin and B. Rafaely, “**Analysis of distortion in audio signals introduced by microphone motion,**” in *2016 24th European Signal Processing Conference (EUSIPCO)*, 2016, pp. 998–1002. DOI: [10.1109/EUSIPCO.2016.7760398](https://doi.org/10.1109/EUSIPCO.2016.7760398).
- [6] S. Bodiroza, V. Tourbabin, G. Schillaci, J. Sheaffer, V. Hafner, and B. Rafaely, “**On Natural Robot Movements for Enriching Acoustic Information,**” in *5th Israeli Conference on Robotics (ICR2016)*, Herzeliya, Israel, Apr. 2016.
- [7] V. Tourbabin and B. Rafaely, “**Optimal Design of Microphone Array for Humanoid-Robot Audition,**” in *5th Israeli Conference on Robotics (ICR2016)*, Herzeliya, Israel, Apr. 2016.
- [8] V. Tourbabin and B. Rafaely, “**Design of Pseudo-Spherical Microphone Array with Extended Frequency Range for Robot Audition,**” in *The 42nd Annual Conference on Acoustics (DAGA2016)*, Aachen, Germany, Mar. 2016.
- [9] V. Tourbabin, H. Barfuss, B. Rafaely, and W. Kellermann, “**Enhanced Robot Audition by Dynamic Acoustic Sensing in Moving Humanoids,**” in *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2015)*, Brisbane, Australia, Apr. 2015, pp. 5625–5629. DOI: [10.1109/ICASSP.2015.7179048](https://doi.org/10.1109/ICASSP.2015.7179048).
- [10] V. Tourbabin and B. Rafaely, “**Speaker Localization by Humanoid Robots in Reverberant Environments,**” in *2014 IEEE 28th Convention of Electrical Electronics Engineers in Israel (IEEEI)*, Dec. 2014, pp. 1–5. DOI: [10.1109/IEEEI.2014.7005877](https://doi.org/10.1109/IEEEI.2014.7005877).

- [11] V. Tourbabin and B. Rafaely, “**Utilizing Motion in Humanoid Robots to Enhance Spatial Information Recorded by Microphone Arrays,**” in *Joint Workshop on Hands-free Speech Communication and Microphone Arrays (HSCMA 2014)*, Nancy, France, May 2014, pp. 147–151. DOI: [10.1109/HSCMA.2014.6843269](https://doi.org/10.1109/HSCMA.2014.6843269).
- [12] V. Tourbabin and B. Rafaely, “**The Relation Between the Information Delivered by Head-Related Transfer Function and Human Spatial Hearing,**” in *21st International Congress on Acoustics (ICA 2013)(Proceedings of Meetings on Acoustics (POMA))*, vol. 19, Montreal, Canada: ASA, Jun. 2013. DOI: [10.1121/1.4799016](https://doi.org/10.1121/1.4799016).
- [13] V. Tourbabin and B. Rafaely, “**Theoretical Framework for the Design of Microphone Arrays for Robot Audition,**” in *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2013)*, Vancouver, Canada, May 2013, pp. 4290–4294. DOI: [10.1109/ICASSP.2013.6638469](https://doi.org/10.1109/ICASSP.2013.6638469).
- [14] V. Tourbabin and B. Rafaely, “**Objective Measure for Sound Localization Based on Head-Related Transfer Functions,**” in *2012 IEEE 27th Convention of Electrical Electronics Engineers in Israel (IEEEI)*, Nov. 2012, pp. 1–5. DOI: [10.1109/IEEEI.2012.6376925](https://doi.org/10.1109/IEEEI.2012.6376925).
- [15] V. Tourbabin and B. Rafaely, “**Sub-Nyquist Spatial Sampling Using Arrays of Directional Microphones,**” in *Joint Workshop on Hands-free Speech Communication and Microphone Arrays (HSCMA 2011)*, Edinburgh, United Kingdom, May 2011, pp. 76–80. DOI: [10.1109/HSCMA.2011.5942413](https://doi.org/10.1109/HSCMA.2011.5942413).
- [16] V. Tourbabin and B. Rafaely, “**Electronic Steering for a Microphone Array by Sub-Band Phase Compensation,**” in *2010 IEEE 26th Convention of Electrical and Electronics Engineers in Israel (IEEEI)*, Nov. 2010, pp. 585–589. DOI: [10.1109/IEEEI.2010.5662150](https://doi.org/10.1109/IEEEI.2010.5662150).
- [17] S. Hayun, N. Frage, H. Dilman, V. Tourbabin, and M. P. Dariel, “**Synthesis of Dense B₄C–SiC–TiB₂ composites,**” in *Ceramic Transactions*, vol. 178, 2006, pp. 37–44. DOI: [10.1002/9781118408100.ch3](https://doi.org/10.1002/9781118408100.ch3).