

April 20th, 2020

Lior Arbel - CV

Music Acoustics; Music Technology; Active Instruments

lior.e.arbel@gmail.com

www.liorarbel.com

+972-544-452305

Education

- 2020 - present **Technion - Israel Institute of Technology**
Postdoctoral researcher, Viterbi Faculty of Electrical Engineering
Research: Musical Subtractive Synthesis of Environmental Ambient Sounds
- 2015 - 2020 **Technion - Israel Institute of Technology**
PhD, Industrial Design, Faculty of Architecture and Town Planning
Thesis: Symbaline - an Active Wine Glass Instrument
- 2011 - 2015 **Technion - Israel Institute of Technology**
MSc. Industrial Design, Faculty of Architecture and Town Planning
Thesis: New Designs of Musical Instruments Based on Wine Glasses and Similar Vessels
- 2004 - 2009 **Technion - Israel Institute of Technology**
BSc. Electricity Engineering. Senior project: *Computer Generated Hologram with Rotating Intensity Distribution*. Supervisor: Yoav Y. Schechner.

Work Experience

- 2017 - present **Technion - Israel Institute of Technology,
Viterbi Faculty of Electricity Engineering**
Teaching Assistant: Auditory and Visual Systems (Graduate course)
Laboratory Demonstrator: High Speed Digital Systems Lab (Undergraduate lab)
- 2011 - 2015 **Intel (Haifa, Israel)**
System margin validation engineer
Skills: High speed serial buses; Experiment design; CPU analog and digital circuits.
- 2007 - 2011 **Intel (Haifa, Israel)**
Analog validation engineer

Peer Reviewed Publications

Arbel, L., Schechner, Y. Y., & Amir, N. *The Symbaline - An Active Wine Glass Instrument with a Liquid Sloshing Vibrato Mechanism*. Proceedings of the International Conference on New Interfaces for Musical Expression, Porto Alegre, Brazil, 2019, 9–14.

Arbel, L., Schechner, Y. Y., & Amir, N. *Symbaline: An Electromagnetically Actuated Wine Glass Instrument*. Journal of New Music Research, 2018, 47(5), 476-491.

Arbel, L., Schechner, Y. Y., & Amir, N. *Wine Glass Sound Excitation by Mechanical Coupling to Plucked Strings*. Applied Acoustics, 2017, 124, 1-10.

Invited Presentations

Arbel, L. & Amir, N. Symbaline concert and lecture
Biennale du Son, La Mans, France, November 2019.

Other Conference Publications

The International Symposium on Music Acoustics (ISMA)

Arbel, L., Schechner, Y. Y., & Amir, N. - A Liquid Sloshing Vibrato Mechanism for the Symbaline; an Active Wine Glass Instrument
Demo presentation. 2019.
Best demo award.

The International Symposium on Musical Acoustics (ISMA)

Arbel, L., Schechner, Y. Y., & Amir, N. - An Electromagnet Based Wine Glass Instrument
Oral presentation. 2017.

Third Vienna Talk on Music Acoustics

Arbel, L., Schechner, Y. Y., & Amir, N. - Methods for Exciting Wine Glasses by Coupling to Plucked Strings - Theory and Experiment
Oral presentation. 2015.

Media

“Sonification”, *Shlosha Sheyodim*, KAN, Jerusalem, 11.14.2018, National Radio
Guest appearance