

RESUME



Date: 18.04.2017

Full name: Amit Dolev

Date and place of birth: 7.11.1986, Rehovot, Israel.

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ACADEMIC DEGREES

2013: BSc – *Suma cum Laude*, Mechanical Engineering, Technion.

2016: MSc – Mechanical Engineering, Technion. During a direct doctoral track.

TA APPOINTMENTS

2014 – Today: Teaching assistant, Mechanical Engineering, Technion.

PROFESSIONAL EXPERIENCE

2013 – 2014: Lab engineer, Dynamics laboratory, Technion Research & Development Foundation Ltd.

2009 – 2013: Mechanical Engineer, Dolev Holdings Ltd.

RESEARCH INTERESTS

- Vibrations
- Parametric resonators
- Acoustics
- Experimental identification, and modeling of vibrating structures

TA EXPERIENCE

- Experimental Methods Laboratory, undergraduate-level, 2014-15 (Lab Instructor).
- Theory of vibrations, undergraduate-level, 2015 (Frontal teaching).
- Theory of vibrations, undergraduate-level, 2016 (Frontal teaching).

TECHNION ACTIVITIES

- 2009-13: Member, Technion handball team.
 2015-16: Member, Technion handball team.

HONORS & AWARDS

- 2016: Ministry of Science, Technology & Space, applied science and engineering scholarship (הקרן הלאומית למחקר מדעי יישומי והנדסי) for PhD students 2016. Awarded to the top Israeli graduate students countrywide in all science and engineering fields.
 ₪ 250,000 for three years.
- 2016: KLA-Tencor Award for graduate students, 2016.
 \$ 3,000.
- 2014: The Miriam and Aaron Gutwirth memorial fellowship for special excellence in research and studies, during MSc (Two semesters).
 ₪ 50,000 + \$1,000.
- 2014: Sidney and Beatrice Wolberg Award, 2014.
 ₪ 1,000.

PUBLICATIONS

- Bucher, I., Gabai, R., Plat, H., Setter, E., and Dolev A., “Experimental travelling waves identification & tuning in mechanical structures.” *Mathematics and Mechanics of Solids*, Submitted.
- Tresser, S., Dolev, A., and Bucher, I., “Dynamic balancing of super-critical rotating structures using low-speed data via parametric excitation.” *Journal of Sound and Vibration*, Submitted.
- Dolev, A., and Bucher, I., “Experimental and Numerical Validation of Digital, Electromechanical, Parametrically Excited Amplifiers.” *Journal of Vibration and Acoustics* 138, no. 6 (2016): 061001.
- Dolev, A., and Bucher, I., “Tuneable, non-degenerated, nonlinear, parametrically-excited amplifier.” *Journal of Sound and Vibration* 361 (2016): 176-189.

Patents

- Bucher, I., and Dolev, A., “*Detecting and eliminating imbalance in fast rotating structures using tuned parametric excitation*” (PCT stage).

CONFERENCES

Refereed papers in conference proceeding

- Dolev, A., and Bucher, I., “*In situ topology modification for increased sensitivity in a multi-degree-of-freedom parametric amplifier*”, ICCES 2017 – International Conference on Computational & Experimental Engineering and Science, Funchal, Madeira Island, Portugal, June 26-30, 2017.
- Bucher, I., Tresser, S., and Dolev, A., “*Detecting imbalance of high-speed rotors with dual frequency parametric excitation*”, ICCES 2017 – International Conference on Computational & Experimental Engineering and Science, Funchal, Madeira Island, Portugal, June 26-30, 2017.
- Dolev, A., and Bucher, I., “*Analytical, numerical and experimental investigation of a tunable, nonlinear multi-degree-of-freedom parametrically excited amplifier*”, ISMA 2016 – International Conference on Noise and Vibration Engineering, Leuven, Belgium, September 19-21, 2016.
- Dolev, A., and Bucher, I., “*A parametric amplifier for weak, low-frequency forces*”, IDETC/CIE 2015 – Proceeding of the ASME 2015 international design engineering technical conferences and computers & information in engineering conference, Boston, Massachusetts, USA, August 2-5, 2015.
- Dolev, A., and Bucher, I., “*A new paradigm for parametric mechanical amplifier*”, *DINAME 2015 - Proceedings of the XVII International Symposium on Dynamic Problems of Mechanics*, Natal, RN, Brazil, February 22-27, 2015.

Other conference/workshop contributions

- Tresser, S., Dolev, A., and Bucher, I., “*Balancing high speed flexible rotors using low rotation speed via parametric excitation*”, the 34 ICME, Haifa, Israel, November 22-23, 2016.
- Dolev, A., and Bucher, I., “*Tunable parametrically excited amplifier for selective detection in distributed systems*”, the 33 ICME, Tel-Aviv, Israel, March 2, 2015.
- Dolev, A., and Bucher, I., “*Balancing a fast rotating system while spinning at low rotation speeds*”, Predictive maintenance, harshness monitoring, society meeting, Haifa, Israel, January 8, 2015.