

**Date: 29.12.13**

## **RESUME**

Full name: Starosvetsky Yuli

Date and place of birth: 30.11.1978, Moscow, USSR

Repatriation date: April, 1991

Marital status: Married + 2



## **ACADEMIC DEGREES**

2009 Ph.D., Mechanical Engineering, Technion-I.I.T.

2006 M.Sc., Mechanical Engineering, Technion-I.I.T.

2002 B.Sc., Mechanical Engineering, Technion-I.I.T.

## **ACADEMIC APPOINTMENTS**

2011- present: **Assistant Professor**, Mechanical Engineering, Technion, Israel

2009 - 2011: **Post-Doctoral Research Associate** in the research group of Prof. Alexander F. Vakakis and Prof. Lawrence Bergman, Linear and Nonlinear Dynamics and Vibrations Laboratory, Mechanical Science and Engineering Department, University of Illinois at Urbana Champaign (UIUC), USA.

## **PROFESSIONAL EXPERIENCE**

2002-2006 Captain, Engineering design of military vehicles, Israeli Defense Forces (IDF)

2001-2002 Software Engineer in R&B startup, Yokneam, Israel

## **RESEARCH INTERESTS**

Nonlinear dynamics and vibrations, bifurcation theory, regular and stochastic dynamics of granular media, passive and semi-active vibration and shock absorption, structural acoustics and waves, dynamics of multi-layered composite structures

## **TEACHING EXPERIENCE**

### Design of new courses:

036073 **Nonlinear Waves Theory**, (Graduate Level), Delivered in Fall 2012-2013

### Lecturer in the courses:

036002 **Analytical methods 2**, (Graduate Level)

036073 **Nonlinear Waves Theory**, (Graduate Level)

034011 **Vibrations Theory**, (Undergraduate Level)

034010 **Dynamics**, (Undergraduate Level), To be delivered in Spring 2014

### Teaching assistant (frontal weekly teaching) in the courses:

#### Undergraduate Courses:

034010 **Dynamics**

035027 **Experimental methods in mechanical engineering**, Laboratory instructor

034033 **Numerical analysis**

### Additional teaching experience in the academia

Partial lecturing at the Department of Theoretical and Applied Mechanics, University of Illinois at Urbana Champaign, (UIUC), Illinois, USA

TAM 518 **Wave Motion**, (Graduate Level)

## **PUBLIC PROFESSIONAL ACTIVITIES**

### **Reviewer:**

2010 - Present: Physical Review Letters (PRL), Physical Review E (PRE), Royal Society Proceedings A (RSPA), Journal of Applied Mechanics (JAM), Mechanical Systems and Signal Processing (MSSP), Journal of Sound and Vibration (JSV), Nonlinear Dynamics, Experimental Mechanics, International Journal of Nonlinear Mechanics, Journal of Vibration and Acoustics (JVA)

## **TECHNION ACTIVITIES**

### **Departmental**

2012 Faculty research day, referee

2012 – Present: Coordinator of the ME special projects

2013 ASME Old Guard Oral Presentations, referee

2013 – Present: Head and in-charge of academic content, website of the Faculty of Mechanical Engineering, Technion

## **HONORS**

2010 Pnueli award for excellent Ph.D. thesis, Technion, I.I.T.  
2009 Teaching Assistant Award for Academic Excellency, Technion, I.I.T.  
2009 IRWIN AND JOAN JACOBS award for excellence in studies  
2008 Safra award for excellence in Ph. D. study  
2007 Aharon and Ovadia Barzani award for excellent M.Sc. thesis  
2007 Marie Curie Fellowship for TC1 SICON event (L'Aquila, Italy) attendance

## **GRADUATE STUDENTS**

### **M. Sc. Students**

#### **Theses in progress**

1. Ben-Meir Yitshak, primary supervisor, started in 2012, topic: "Analysis of transient and stationary regimes excited in highly degenerate, granular, scalar models and locally excited 2D granular setups" ("Brakim" student program) [31], [32]
2. Shiffer Adi, primary supervisor, started in 2012, topic: "Theoretical study of the response regimes of highly heterogeneous granular crystals" ("Brakim" student program)
3. Yacobi Gil, primary supervisor, started in 2013, topic: "Development of semi-active control strategies for the efficient wave arrest in 1D and 2D acoustic meta-materials" ("Brakim" student program)
4. Lisyansky Alek, primary supervisor, started in 2012, topic: "Dynamic response of 2D heterogeneous granular structure imitating granular shock absorber, subject to the uniform, one sided, shock like excitation" (External, Design Engineer, Rafael)
5. Kislovsky Victor, primary supervisor, started in 2012, topic: "Effect of on-site perturbations on the dynamics of highly non-linear waves in one-dimensional homogeneous and heterogeneous granular crystals" (External, Officer, IDF)

### **Ph.D. Students**

#### **Theses in progress**

1. Vorotnikov Kirill, primary supervisor, started in 2012, topic: "Theoretical study of the response regimes of granular chains comprising hollow spherical elements containing additional internal degrees of freedom (linear / non-linear)" ("Reamim" student program, direct doctoral program) [submitted papers, 33]

### **Post Doctoral Scholars**

Dr. Meimukhin Danila, started in 2013, topic: " Wave Propagation in 2D acoustic meta-materials "

## Visiting Fellows

Dr. Kovaleva Margarita, starting date January 10, 2014

## Graduate student awards (Supervisor: Y. Starosvetsky)

2012, K. Vorotnikov, Winner of John Wolberg prize in memory of Sidney and Beatrice Wolberg for excellence in studies

2013, K. Vorotnikov, Winner of Leonard and Diane Sherman Interdisciplinary Graduate School Fellowship

2013, K. Vorotnikov, Winner of Indigo HP Prize for excellence in studies

2013, K. Vorotnikov was accepted to the **TMIP – Technion MIT Internship program**

## RESEARCH GRANTS

Year	Funding Agency	Subject	PI's Name	Amount
2012-2016	<b>Israel Science Foundation</b>	Advanced Nonlinear Strategies for Passive Control of Stress Waves Propagation through the Granular Matter	Yuli Starosvetsky	150,000 NIS Per year
2014	<b>GIF Young Scientists' Program</b>	Wave redirection in the arrays of coupled heterogeneous granular chains	Yuli Starosvetsky	25,000 Euros
2013	<b>INRIA Travel Grant</b>	Primary Response of Granular Dimer Chains	Yuli Starosvetsky	4,000 Euros

## PUBLICATIONS

### Theses

**M. Sc. Thesis topic:** Study and Optimization of Strongly Nonlinear Vibration Absorber

Supervision: Prof. O.V. Gendelman

Research Field: Nonlinear Dynamics

**Ph. D. Thesis topic:** Vibration Protection Based on Nonlinear Energy Sinks: Mathematical Description and Applications

Supervision: Prof. O.V. Gendelman

Research Field: Nonlinear Dynamics

## **Refereed papers in professional journals**

**In the papers published with supervised students, their names are underlined>**

- [1] O.V. Gendelman, Y. Starosvetsky, ‘Quasiperiodic Response Regimes of Linear Oscillator Coupled to Nonlinear Energy Sink Under Periodic Forcing’, (ASME) *Journal of Applied Mechanics* 74 (2007) 325-331
- [2] O.V. Gendelman, Y. Starosvetsky and M. Feldman, ‘Attractors of Harmonically Forced Linear Oscillator with Attached Nonlinear Energy Sink I: Description of Response Regimes’, *Nonlinear Dynamics* 51 (2008), 31-46
- [3] Y. Starosvetsky, O.V. Gendelman, ‘Attractors of Harmonically Forced Linear Oscillator with Attached Nonlinear Energy Sink II: Optimization of Strongly Nonlinear Vibration Absorber’, *Nonlinear Dynamics* 51 (2008), 47-57
- [4] Y. Starosvetsky, O.V. Gendelman, ‘Dynamics of a strongly nonlinear vibration absorber coupled to a harmonically excited two-degree-of-freedom system’, *Journal of Sound and Vibration* 312(1-2), (2008), 234-256
- [5] Y. Starosvetsky, O.V. Gendelman, ‘Response regimes of linear oscillator coupled to nonlinear energy sink with harmonic forcing and frequency detuning’, *Journal of Sound and Vibration*, 315 (3), (2008), 746-765
- [6] Y. Starosvetsky, O.V. Gendelman, ‘Strongly modulated response in forced 2DOF oscillatory system with essential mass and potential asymmetry’, *Physica D*, 237, (2008), 1719-1733
- [7] Y. Starosvetsky, O.V. Gendelman, ‘Vibration absorption in systems with a nonlinear energy sink: Nonlinear damping’, *Journal of Sound and Vibration*, 324 (3-5), (2009), 916-939
- [8] Y. Starosvetsky, O.V. Gendelman, ‘Interaction of nonlinear energy sink with a two degrees of freedom linear system: Internal resonance’, *Journal of Sound and Vibration*, 329, (2009), 1836-1852
- [9] Y. Starosvetsky, O.V. Gendelman, ‘Bifurcations of attractors in forced system with nonlinear energy sink: the effect of mass asymmetry’, *Nonlinear Dynamics*, 51, Numbers 1-2, (2009), 47-57
- [10] Y. Starosvetsky, A. F. Vakakis, ‘Traveling Waves and Localized Modes in One-dimensional Homogeneous Granular Chains with no Pre-compression’, *Phys. Rev. E*, 82, 026603 (2010)
- [11] Y. Starosvetsky, O.V. Gendelman, ‘Response regimes in forced system with nonlinear energy sink: quasi-periodic and random forcing’, *Nonlinear Dynamics*, 64, Numbers 1-2, 177-195, DOI 10.1007/s11071-010-9856-6 (2010)
- [12] K.R. Jayaprakash, Y. Starosvetsky, A.F. Vakakis, M. Peeters, Gaetan Kerschen, ‘Nonlinear Normal Modes and Band Zones in Granular Chains with no Pre-compression’, *Nonlinear Dynamics*, available online, DOI: 10.1007/s11071-010-9809-0 (2010)
- [13] K.R. Jayaprakash, Y. Starosvetsky, A.F. Vakakis, ‘New Class of Solitary Waves in Granular Dimer Chains with No-Precompression’, *Phys. Rev. E* 83, 036606 (2011)

- [14] Y. Starosvetsky, A.F. Vakakis, 'Primary Wave Transmission in Systems of Elastic Rods with Granular Interfaces', *Wave Motion* 48, 568–58 (2011)
- [15] Y. Starosvetsky, L.I. Manevitch, 'Non-stationary regimes in Duffing oscillator subject to a bi-harmonic forcing near primary resonance', *Phys. Rev. E* 83, 046211 (2011)
- [16] D. Andersen, Y. Starosvetsky, A. F. Vakakis, L. Bergman, 'Dynamic Instabilities in Coupled Oscillators Induced by Geometrically Nonlinear Damping', *Nonlinear Dynamics*, DOI: 10.1007/s11071-011-0028-0 (2011)
- [17] Y. Starosvetsky, M. A. Hasan, A. F. Vakakis, L. I. Manevitch, 'Strongly Nonlinear Beat Phenomena and Energy Exchanges in Weakly Coupled Granular Chains on Elastic Foundations', *SIAM J. Appl. Math.*, 72(1), 337–361 (2011)
- [18] D. Andersen, X. Wang, Y. Starosvetsky, M. Mane, S. Hubbard, K. Remick, A. Vakakis, L. Bergman, 'Damped Transition into a State of Sustained Resonance Scattering of Coupled Oscillators with Essential Nonlinearities', *Physica D*, 241, 964–975 (2012)
- [19] Y. Starosvetsky, K.R. Jayaprakash, Alexander F. Vakakis, Gaëtan Kerschen, Leonid I. Manevitch, 'Effective Particles and Classification of the Intrinsic Dynamics and Localized Modes of Homogeneous Granular Media with No Pre-compression', *Phys. Rev. E.*, 85, 036606 (2012)
- [20] Y. Starosvetsky, K.R. Jayaprakash, A. F. Vakakis, 'Scattering of Solitary Waves and Excitation of Transient Breathers in Granular Media by Light Intruders', (*ASME*) *Journal of Applied Mechanics*, Vol. 79, 011001-1 – 011001-12, (2012)
- [21] K.R. Jayaprakash, A.F. Vakakis, Y. Starosvetsky, 'Solitary Waves in a General Class of Granular Dimer Chain', *Journal of Applied Physics*, Vol. 112, 034908 (2012)
- [22] K.R. Jayaprakash, A.F. Vakakis, Y. Starosvetsky, 'Strongly Nonlinear Traveling Waves in Granular Dimer Chains', *Journal of Mechanical Systems and Signal Processing*, 39, 91–107, (2013) (Special issue on 'Traveling Waves in Mechanical Structures, Sensing, Control, Identification and Applications'), doi: 10.1016/j.ymssp.2012.04.018 (2012)
- [23] Y. Starosvetsky, M.A. Hasan, A.F. Vakakis, 'Nonlinear Pulse Equi-partition in Weakly Coupled Ordered Granular Chains with no Pre-Compression', Accepted for publication, Technical Note, *Journal of Computational and Nonlinear Dynamics* (in press), (2012)
- [24] Y. Starosvetsky, 'Evolution of the primary pulse in one-dimensional granular crystals subject to on-site perturbations: Analytical study', *Phys. Rev. E*, 85, 051306 (2012)
- [25] I. Szelengowicz, M.A. Hasan, Y. Starosvetsky, A. Vakakis, C. Daraio, 'Energy equi-partition in two-dimensional granular systems with spherical intruders', Accepted for publication, *Phys. Rev. E* (2013)
- [26] K.R. Jayaprakash, A.F. Vakakis, Y. Starosvetsky, 'Nonlinear Resonances in a General Class of Granular Dimers with no Pre-compression', *Granular Matter*, 15, 327–347, (2013)

- [27] M.A. Hasan, A.F. Vakakis, Y. Starosvetsky, L.I. Manevitch, ‘Nonlinear Targeted Energy Transfer and Macroscopic Analogue of the Quantum Landau-Zener Effect in Coupled Granular Chains’, *Physica D*, 252, 46–58, (2013)
- [28] J. Lydon, K.R. Jayaprakash, D. Ngo, Y. Starosvetsky, A. Vakakis, C. Daraio, ‘Frequency Bands of Strongly Nonlinear Homogeneous Granular Crystals’, *Phys. Rev. E*, 88, 012206 (2013)
- [29] Y. Starosvetsky, L. I. Manevitch, ‘On Intense Energy Exchange and Localization in Periodic FPU Dimer Chains’, *Physica D*, 264, p. 66-79, (2013)
- [30] G. James, Y. Starosvetsky, ‘Breather solutions of the discrete p-Schrödinger equation’, *Localized excitations in nonlinear complex systems*, Nonlinear systems and complexity 7, Springer, (2014)
- [31] Y. Starosvetsky, Y. Ben-Meir, ‘Nonstationary regimes of homogeneous Hamiltonian systems in the state of sonic vacuum’, *Phys. Rev. E*, 87, 062919 (2013)
- [32] Y. Ben-Meir, Y. Starosvetsky, ‘Modulation of solitary waves and formation of non-trivial attractors in the array of coupled granular chains subjected to on-site perturbations’, accepted for publication, *Wave Motion* (2013)

#### **Papers submitted (currently under review)**

- [33] K. Vorotnikov, Y. Starosvetsky, G. Theocharis, P.G. Kevrekidis ‘Nonlinear Waves in a Mass-in-Mass Lattice’, *Physica D* (2013)

## **CONFERENCES**

### **Refereed papers in conference proceedings**

- [1] Y. Starosvetsky, ‘Propagation of solitary waves through a perturbed granular scalar model’, 4<sup>th</sup> Canadian Conference on Nonlinear Solid Mechanics (CanCNSM 2013), July 23-26, 2013
- [2] Y. Starosvetsky, Y. Ben-Meir ‘Study of strong resonant interactions in the systems of coupled anharmonic oscillators and oscillatory chains in the state of acoustic vacuum’, 4<sup>th</sup> Canadian Conference on Nonlinear Solid Mechanics (CanCNSM 2013), July 23-26, 2013
- [3] Y. Starosvetsky, M.A. Hasan, Alexander Vakakis, ‘Efficient Energy Transfer and Redirection in Weakly Interacting Granular Lenses’, ASME 2011 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, August 28-31, 2011, Washington DC
- [4] K.R. Jayaprakash, Y. Starosvetsky, Alexander Vakakis, ‘Resonance and Anti-Resonance phenomenon in Granular Dimer Chains with no Pre-Compression’, ASME 2011 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, August 28-31, 2011, Washington DC

- [5] D. Andersen, X. Wang, Y. Starosvetsky, M. Mane, S. Hubbard, K. Remick, A. Vakakis, L. Bergman, 'Damped Transition of a Strongly Nonlinear System of Coupled Oscillators into a State of Continuous Resonance Scattering', ASME 2011 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, August 28-31, 2011, Washington DC
- [6] D. Andersen, Y. Starosvetsky, A. Vakakis, L. Bergman, 'Dynamic instabilities from geometrically nonlinear damping', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [7] D. Andersen, Y. Starosvetsky, Mane M., S. Hubbard, K. Remick, A. Vakakis, L. Bergman, 'Continuous Resonance Scattering: Numerical and Experimental Observations', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [8] K. R. Jayaprakash, Y. Starosvetsky, A. F. Vakakis, 'Nonlinear waves and anti-resonance phenomena in disordered granular chains under zero pre-loading', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [9] Y. Starosvetsky, A. F. Vakakis, 'Primary wave transmission in systems of elastic rods with granular interfaces', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [10] Y. Starosvetsky, L. I. Manevitch, 'Non stationary regimes in Duffing oscillator subject to a bi-harmonic forcing near primary resonance', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [11] Y. Starosvetsky, O.V. Gendelman, 'Dynamics of essentially non linear vibration absorber, coupled to harmonically excited 2 DOF system', 6th European non linear dynamics conference (ENOC 2008), International Physics and Control Society (IPACS) electronic library, June 30th-July 4th, 2008, Saint Petersburg, Russia
- [12] Y. Starosvetsky, O.V. Gendelman, 'Regimes of harmonically forced linear oscillator with attached non linear energy sink near the main resonance', 6th European non linear dynamics conference (ENOC 2008), International Physics and Control Society (IPACS) electronic library, June 30th-July 4th, 2008, Saint Petersburg, Russia
- [13] Y. Starosvetsky, O.V. Gendelman, 'Response Regimes of Linear Oscillator Coupled to Nonlinear Energy Sink Under Periodic Forcing: Account of Detuning', ASME 2007 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, DETC2007-34222 pp. 1591-1600, September 4-7, 2007, Las Vegas, Nevada, USA

### **Invited Talks**

Y. Starosvetsky, 'Nonlinear Wave Phenomena in Homogeneous and Heterogeneous Granular Crystals', Special Guest Seminar at INRIA, Grenoble, France



## Talks

### **Speaker is underlined;**

- [1] Y. Starosvetsky, 'Propagation of solitary waves through a perturbed granular scalar model', 4<sup>th</sup> Canadian Conference on Nonlinear Solid Mechanics (CanCNSM 2013), July 23-26, 2013
- [2] Y. Starosvetsky, Y. Ben-Meir, 'Study of strong resonant interactions in the systems of coupled anharmonic oscillators and oscillatory chains in the state of acoustic vacuum', 4<sup>th</sup> Canadian Conference on Nonlinear Solid Mechanics (CanCNSM 2013), July 23-26, 2013
- [3] Y. Starosvetsky, 'Nonlinear Wave Propagation in the Arrays of Coupled Granular Chains', SIAM Conference on Applications of Dynamical Systems, May 19-23, 2013, Snowbird, Utah, USA
- [4] K. Vorotnikov, Y. Starosvetsky, 'Nonlinear response regimes of granular chains containing internal degrees of freedom', EUROMECH 541 New Advances in the Nonlinear Dynamics and Control of Composites for Smart Engineering Design, June 3-6, 2013, Senigallia, Italy
- [5] Y. Starosvetsky, 'Primary Pulse Evolution in Granular Crystals Subject to On-Site Perturbations', SIAM Conference on Nonlinear Waves and Coherent Structures, June 13, 2012, The University of Washington, Seattle, Washington, USA
- [6] Y. Starosvetsky, 'Modulation of Nonlinear Waves in Perturbed Granular Crystals', The 4th International Conference on Localization', Energy Transfer and Nonlinear Normal Modes in Mechanics and Physics (NNM2012) July 5th, 2012, Haifa, Israel
- [7] Y. Starosvetsky, 'Energy Exchanges and Localization in Forced Nonlinear Oscillators and Strongly Degenerate Systems', 2nd Conference on Localized Excitations in Nonlinear Complex Systems, July 10, 2012, Seville, Spain
- [8] Y. Starosvetsky, M. A. Hasan, Alexander Vakakis, 'Efficient Energy Transfer and Redirection in Weakly Interacting Granular Lenses', ASME 2011 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, August 28-31, 2011, Washington DC
- [9] K. R. Jayaprakash, Y. Starosvetsky, A. Vakakis, 'Resonance and Anti-Resonance phenomenon in Granular Dimer Chains with no Pre-Compression', ASME 2011 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, August 28-31, 2011, Washington DC
- [10] D. Andersen, X. Wang, Y. Starosvetsky, M. Mane, S. Hubbard, K. Remick, A. Vakakis, L. Bergman, 'Damped Transition of a Strongly Nonlinear System of Coupled Oscillators into a State of Continuous Resonance Scattering', ASME 2011 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, August 28-31, 2011, Washington DC
- [11] D. Andersen, Y. Starosvetsky, A. Vakakis, L. Bergman, 'Dynamic instabilities from geometrically nonlinear damping', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy

- [12] D. Andersen, Y. Starosvetsky, M. Mane, S. Hubbard, K. Remick, A. Vakakis, L. Bergman, 'Continuous Resonance Scattering: Numerical and Experimental Observations', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [13] K.R. Jayaprakash, Y. Starosvetsky, A.F. Vakakis, 'Nonlinear waves and anti-resonance phenomena in disordered granular chains under zero pre-loading', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [14] Y. Starosvetsky, A.F. Vakakis, 'Primary wave transmission in systems of elastic rods with granular interfaces', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [15] Y. Starosvetsky, L.I. Manevitch, 'Non stationary regimes in Duffing oscillator subject to a bi-harmonic forcing near primary resonance', ENOC 2011, 7th European Nonlinear Dynamics Conference, 24-29 July 2011, Rome, Italy
- [16] K.R. Jayaprakash, Y. Starosvetsky, A.F. Vakakis, 'Nonlinear Resonance Phenomena Leading to Strong Pulse Attenuation in Granular Diatomic Chains with no Pre-Compression', 17th Biennial International Conference of the APS Topical Group on Shock Compression of Condensed Matter, June 26–July 1 2011, Chicago, Illinois
- [17] A.F. Vakakis, Y. Starosvetsky, K.R. Jayaprakash, 'Nonlinear Resonance Phenomena in Granular Dimers with no Pre-Compression', SIAM Conference on Application of Dynamical Systems, May 22-26, 2011, UTAH, USA
- [18] K.R. Jayaprakash, Y. Starosvetsky, A. Vakakis, 'Nonlinear Waves and Resonance Phenomena in Disordered Granular Chains Under Zero Pre-Loading', The Seventh Imacs International Conference On Nonlinear Evolution Equations And Wave Phenomena: Computation And Theory, Athens, GA, April 04-07, 2011
- [19] Y. Starosvetsky, A.F. Vakakis, 'Strongly Nonlinear Traveling Waves and Localized Modes in One-Dimensional Homogeneous Granular Chains with no Pre-Compression', 2010 ASME International Design Engineering Technical Conferences & Computers and Information In Engineering Conference, DETC2010-2920, August 15-18, Montreal, Quebec, Canada
- [20] Y. Starosvetsky, O.V. Gendelman, 'Dynamics of essentially nonlinear vibration absorber, coupled to harmonically excited 2 DOF system', 6th European nonlinear dynamics conference (ENOC 2008), International Physics and Control Society (IPACS) electronic library, June 30th-July 4th, 2008, Saint Petersburg, Russia
- [21] Y. Starosvetsky, O.V. Gendelman, 'Regimes of harmonically forced linear oscillator with attached non-linear energy sink near the main resonance', 6th European non-linear dynamics conference (ENOC 2008), International Physics and Control Society (IPACS) electronic library, June 30th-July 4th, 2008, Saint Petersburg, Russia
- [22] Y. Starosvetsky, O.V. Gendelman, 'Response Regimes of Linear Oscillator Coupled to Nonlinear Energy Sink Under Periodic Forcing: Account of Detuning', ASME 2007 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, DETC2007-34222 pp. 1591-1600, September 4–7, 2007, Las Vegas, Nevada, USA

[23] Y. Starosvetsky, O.V. Gendelman, 'Response Regimes of Linear Oscillator Coupled to Nonlinear Energy Sink Under Periodic Forcing: Account of Detuning', ASME 2007 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, DETC2007-34222 pp. 1591-1600, September 4–7, 2007, Las Vegas, Nevada, USA

### **Participation in organizing conferences and workshops**

- Co-Organizer of the 4th International Conference on Localization, "Energy Transfer and Nonlinear Normal Modes in Mechanics and Physics (NNM2012)", Haifa, Israel, July 5th, 2012
- Co-organizer of Minisymposium on "Wave Propagation in Mechanical Systems" at Eighth European Nonlinear Dynamics Conference (ENOC), Vienna, Austria, 2014
- Organizer of James H. Belfer Memorial Symposium, "Nonlinear wave phenomena", Technion, Israel, 2014