

Band gap tuning based on adjustable stiffness of local resonators

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard** META 2023 Paris - France : The 13th International Conference on Metamaterials, Photonic Crystals and Plasmonics : proceedings 2023 / p. 1743-1744 : ill https://metaconferences.org/META23/files/meta23_proceedings.pdf

Bandgap dynamics in locally resonant metastructures : a general theory of internal resonator coupling

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard** Applied Sciences (Switzerland) 2024 / art. 2447 <https://doi.org/10.3390/app14062447> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Damping Optimization in Locally Resonant Metastructures via Hybrid GA-PSO Algorithms and Modal Analysis

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; Ellervee, Peeter; **Petlenkov, Eduard** ASME 2024 Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS2024) : September 9–11, 2024, Atlanta, Georgia, USA : proceedings 2024 / Paper No: SMASIS2024-137019 ; 8 p <https://doi.org/10.1115/SMASIS2024-137019>

Dynamics Modeling and Optimization of Locally Resonant Metastructures for Vibration Suppression and Energy Harvesting = Dünaamiline modelleerimine ja optimeerimine kohalikult resonantsete metastruktuuride jaoks vibratsiooni summutamiseks ja energia kogumiseks

Alimohammadi, Hossein 2025 https://www.ester.ee/record=b5767448*est <https://digikogu.taltech.ee/et/Item/06e0647d-9b4e-4151-a6e6-364daf9a2937> <https://doi.org/10.23658/taltech.79/2025>

Enhancing bandgap depth in locally resonant metastructures via notch-filtered piezoelectric actuation

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard** 2024 IEEE International Conference on Industrial Technology (ICIT) 2024 <https://doi.org/10.1109/ICIT58233.2024.10540976> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Exploring internally coupled resonator's dynamics and spatial variability in metamaterials for vibration suppression

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard** Active and Passive Smart Structures and Integrated Systems XVII 2024 / art. 1294614 <https://doi.org/10.1117/12.3024067> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Exploring the real-world challenges and efficacy of internal coupling in metastructures : an experimental perspective

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; Ellervee, Peeter; **Petlenkov, Eduard** 2024 International Conference on Electrical, Computer and Energy Technologies (ICECET) 2024 <https://doi.org/10.1109/ICECET61485.2024.10698725> [Article at Scopus](#)

Harvesting energy and stability insights in internally coupled resonator systems

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard** Proceedings, IEEE 18th International Conference on Advanced Motion Control, AMC2024, February 28-March 1, 2024 2024 / p. 1-6 : ill <https://doi.org/10.1109/AMC58169.2024.10505680>

Mechatronics technology and transportation sustainability : editorial

Rassõlkin, Anton; Tammi, Kari; **Demidova, Galina;** HosseinNia Kani, Seyed Hassan Sustainability 2022 / art. 1671 <https://doi.org/10.3390/su14031671> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Nonlinear dynamics in PEH for enhanced power output and vibration suppression in metastructures

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard** Nonlinear Dynamics 2024 / p. 12941 - 12963 <https://doi.org/10.1007/s11071-024-09739-w> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Piezoelectric compensation of structural damping in metamaterial beams: stability and performance analysis

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; Ellervee, Peeter; **Petlenkov, Eduard** Active and Passive Smart Structures and Integrated Systems XVIII 2024 / art. 129460J, 11 p. : ill <https://doi.org/10.1117/12.3024120> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Stability analysis and energy harvesting in lumped parameter systems with internally coupled resonators

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard** JVC/Journal of Vibration and Control 2024 / 13 p. : ill <https://doi.org/10.1177/10775463241241161> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Towards industrialization of FOPID controllers : a survey on milestones of fractional-order control and pathways for future developments

Tepljakov, Aleksei; Alagoz, Baris Baykant; Yeroglu, Celaeddin; Gonzalez, Emmanuel A.; HosseinNia Kani, Seyed Hassan; **Petlenkov, Eduard; Ates, Abdullah; Cech, Martin** IEEE Access 2021 / p. 21016-21042 <https://doi.org/10.1109/ACCESS.2021.3055117> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)