

LIST OF PUBLICATIONS

A. PAPERS PUBLISHED IN PEER-REVIEW JOURNALS

11. **N. T. Vasile**, N. Pavel, "Multi-point laser-induced ignition of air-methane mixtures by a high peak-power passively Q-switched Nd:YAG/Cr⁴⁺:YAG laser," *Opt. & Laser Techn.* **141**, 107169 (2021).
10. P. C. Logofatu, **N. T. Vasile**, "Image resampling by interpolation guided by sensor geometry," *Rom. Rep. Phys.* **73**(1), art. 402 (2021).
9. **N. T. Vasile**, "Parallel encoding in optically multiplexed image camera for temporal resolution improvement," *Opt. Eng.* **59**(3), 033108 (2020).
8. P. Ribes-Pleguezuelo, N. Pavel, E. Beckert, C. Damm, A. Bodemann, O. V. Grigore, G. Croitoru, C. A. Brandus, **N. T. Vasile**, R. Eberhardt, and A. Tünnermann, "Assembly process and optical performances for a golden laser spark-plug device," *Opt. Eng.* **58**(6), 065101 (2019).
7. P. C. Logofatu, V. Damian, **T. Vasile**, and M. L. Pascu, "Two instances of image super-resolution using sensor raster scanning and deconvolution," *Rom. Rep. Phys.* **71**(1), art. 401 (2019).
6. C. Damian, A. Sima, **T. Vasile**, and D. Colțuc, "Microscanning in Hadamard spectroscopy," *Appl. Opt.* **56**(18), 5211-5215 (2017).
5. **T. Vasile**, V. Damian, M. Vasile, and D. Colțuc, "Artificial enhancement of fill factor and resolution for monochrome CMOS sensor array," *Rom. Rep. Phys.* **69**(4), art. 804 (2017).
4. **T. Vasile**, V. Damian, D. Colțuc, and M. Petrovici, "Single pixel sensing for THz laser beam profiler based on Hadamard Transform," *Opt. & Laser Techn.* **79**, 173-178 (2016).
3. F. Garoi, P. C. Logofatu, I. Iordache, **T. Vasile**, and D. Colțuc, "On the implementation of Hadamard spectroscopy", *Univ. Politeh. Buchar. Sci. Bull.-Ser. A-Appl. Math. Phys.* **77**(1), 177-186 (2015); http://www.scientificbulletin.upb.ro/rev_docs_arhiva/full28f_876713.pdf
2. **T. Vasile**, C. Udrea, M. Bojan, F. Garoi, V. Damian, and D. Apostol, "High force transducer at nanoscale," *Rom. J. Phys.* **57** (3-4), 706-710 (2012); https://www.nipne.ro/rjp/2012_57_3-4/0706_0710.pdf
1. D. Apostol, C. Udrea, F. Garoi, **T. Vasile**, and P. C. Logofatu, "High diffraction order grating interferometer for pitch measurement," *Opt. Eng.* **50** (10), 105601 (2011).

B. PROCEEDINGS OF INTERNATIONAL CONFERENCES

(Presentations at International Meetings published in extended version)

9. V. Damian and **T. Vasile**, "Techniques for THz beams evaluations". IEEE Proceeding 2017 International Semiconductor Conference (CAS), 40th Edition, pg. 227-230 (2017); Conference: 40th International Semiconductor Conference (CAS), Sinaia, Romania, October 11-14, 2017.
8. M. Bojan, V. Damian, C. Fleaca, **T. Vasile**, "Terahertz spectroscopic investigations of hazardous substances". Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies VIII Book Series, Proceedings of SPIE, vol. 10010, art. UNSP 1001010 (2016). Conference: 8th International Conference on Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies (ATOM-N), Constanta, Romania, Sept. 25-28, 2016.
7. V. Damian, P. C. Logofatu, **T. Vasile**, "3D THz hyperspectrum applied in security check-in". Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies VIII Book Series, Proceedings of SPIE, vol. 10010, art. number UNSP 100100Y (2016). Conference: 8th

International Conference on Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies (ATOM-N), Constanta, Romania, Sept. 25-28, 2016.

6. **T. Vasile**, V. Damian, Daniela. Coltuc, F. Garoi, and C. Udrea, "Implementation of Hadamard Spectroscopy using MOEMS as a coded aperture", Proc. SPIE **9258**, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VII, 92581H (2015)
5. C. Damian, A Crisan, **T. Vasile**, D. Coltuc, V. Damian, "Noise evaluation in Hadamard spectroscopy". ISSCS 2015 - International Symposium on Signals, Circuits and Systems (2015). Conference: 2015 International Symposium on Signals, Circuits and Systems (ISSCS), Iasi, Romania, July 09-10, 2015.
4. V. Damian, **T. Vasile**, P. C. Logofatu, "Hyperspectral system for testing emissive photonic elements". 2015 International Semiconductor Conference (CAS), pg. 55-58 (2015). International Semiconductor Conference, Sinaia, Romania, October 12-14, 2015.
3. M. A. Petrovici, D. Coltuc, M. Datcu, **T. Vasile**, "Rate-distortion performance of compressive sensing in single pixel camera". 2015 IEEE International Conference on Industrial Technology (ICIT), pg. 1747-1751 (2015). Conference: IEEE International Conference on Industrial Technology (ICIT), Seville, Spain, March 17-19, 2015.
2. I. Urzica, V. Damian, P. C. logofatu, D. Apostol, T. Vasile, C. Udrea "1D hyperspectral images of a Light Emitting Diodes array". Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies VII Book Series, Proceedings of SPIE, vol. 9258, art. 92581C (2015). Conference: 7th International Conference on Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies (ATOM-N), Constanta, Romania, August 21-24, 2014.
1. **T. Vasile**, V. Damian, Daniela. Coltuc, F. Garoi, C. Udrea, "Implementation of Hadamard Spectroscopy using MOEMS as a coded aperture". Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies VII Book Series, Proceedings of SPIE, vol. 9258, art. 92581H (2015). Conference: 7th International Conference on Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies (ATOM-N), Constanta, Romania, August 21-24, 2014.

C. COMMUNICATIONS AT INTERNATIONAL CONFERENCES

(Technical Digests, manuscripts up to 3 pages)

2. **N. T. Vasile**, R. Chiriac, N. Pavel, "High-peak power passively Q-switched Nd:YAG/Cr⁴⁺:YAG laser for multi-point ignition of lean methane-air mixtures," 9th EPS-QEOD Europhoton Virtual Conference, 30 August - 4 September 2020; poster presentation Tu-P1.3.
1. P. Ribes-Pleguezuelo, E. Beckert, C. Damm, A. Bodemann, R. Eberhardt, A. Tünnermann, N. Pavel, O. V. Grigore, G. Croitoru, C. A. Brandus, and **N. T. Vasile**, "The "Golden" Laser Spark Plug Assembly Process," The 7th Laser Ignition Conference, 22-26 April 2019, Pacifico Yokohama, Yokohama, Japan, presentation LIC7-2 (oral presentation).