

2021

- Adami I., Foukarakis M., Ntoa S., Partarakis N., Stefanakis N., Koutras G., Kutsuras T., Ioannidi D., Zabulis X., Stephanidis C., "Monitoring health parameters of elders to support independent living and improve their quality of life," *Sensors*, vol. 21(2), pp.1-36 (2021).
- Clark E.L., Grigoriadis A., Petrakis S., Tazes I., Andrianaki G., Skoulakis A., Orphanos Y., Kaselouris E., Fitis I., Chatzakis J., Bakarezos E., Dimitriou V., Benis E.P., Papadogiannis N.A., Tatarakis M., "High-intensity laser-driven secondary radiation sources using the ZEUS 45 TW laser system at the Institute of Plasma Physics and Lasers of the Hellenic Mediterranean University Research Centre," *High Power Laser Science and Engineering*, vol. 9 (2021).
- Grigoriadis A., Andrianaki G., Tatarakis M., Benis E.P., Papadogiannis N.A., "Betatron-type laser-plasma x-ray sources generated in multi-electron gas targets," *Applied Physics Letters*, vol. 118(13) (2021).
- Hassall K.L., Dye A., Potamitis I., Bell J.R., "Resolving the identification of weak-flying insects during flight: a coupling between rigorous data processing and biology," *Agricultural and Forest Entomology*, vol. 23(4), pp.489-505 (2021).
- Kalatzantonakis-Jullien G., Stefanakis N. and Giannakakis G., "Investigation and ordinal modelling of vocal features for stress detection in speech", in *International Conference on Affective Computing and Intelligent Interaction* (2021).
- Kaleris K., Tazes I., Orphanos Y., Petrakis S., Bakarezos M., Mourjopoulos J., Dimitriou V., Tatarakis M., Papadogiannis N.A., "Experimentally validated modeling of the optical energy deposition in highly ionized ambient air by strong femtosecond laser pulses," *European Physical Journal D*, vol. 75(8) (2021).
- Karmiris I., Astaras C., Ioannou K., Vasiliadis I., Youlatos D., Stefanakis N., Chatziefthimiou A.D., Kominos T., Galanaki A., "Estimating livestock grazing activity in remote areas using passive acoustic monitoring," *Information*, vol. 12(8) (2021).
- Karmiris, I., Astaras, C., Ioannou, K., Vasiliadis, I., Youlatos, D., Stefanakis, N. and Galanaki, A. "Estimating Livestock Grazing Activity in Remote Areas Using Passive Acoustic Monitoring," *Information*, 12(8), p. 290 (2021)
- Kaselouris E., Alexandraki C., Bakarezos M., Tatarakis M., Papadogiannis N.A., Dimitriou V., "A detailed FEM study on the vibro-acoustic behaviour of crash and splash musical cymbals," *International Journal of Circuits, Systems and Signal Processing*, vol. 16, pp.948-955 (2022).
- Kaselouris E., Kosma K., Orphanos Y., Skoulakis A., Fitis I., Markopoulos A.P., Bakarezos M., Tatarakis M., Papadogiannis N.A., Dimitriou V., "Downscaled finite element modeling of metal targets for surface roughness level under pulsed laser irradiation," *Applied Sciences*, vol. 11(3), pp.1-13 (2021).
- Kaselouris E., Orphanos Y., Bakarezos M., Tatarakis M., Papadogiannis N.A., Dimitriou V., "Influence of the plate thickness and material properties on the violin top plate modes," *Proceedings of International Congress and Exposition of Noise Control Engineering* (2021).

Kaselouris E., Orphanos Y., Kosma K., Skoulakis A., Fitis I., Bakarezos M., Papadogiannis N., Tatarakis M., Dimitriou V., "On the micro-modelling of surface roughness in pulsed laser machining," *Materials Science and Engineering*, vol.1037(1) (2021).

Kaselouris E., Tamiolakis G., Dimitriou V., Tatarakis M., "The influence of the load's geometrical characteristics on the generation of the electro-thermo-mechanical instability in a single wire Z-pinch," *Journal of Physics*, vol. 1730(1) (2021).

Kaselouris E., Tamiolakis G., Fitis I., Skoulakis A., Dimitriou V., Tatarakis M., "Instability growth mitigation study of a dielectric coated metallic wire in a low current Z-pinch configuration," *Plasma Physics and Controlled Fusion*, vol. 63(8) (2021).

Ntalampiras S., Potamitis I., "Acoustic detection of unknown bird species and individuals," *CAAI Transactions on Intelligence Technology*, vol. 6(3), pp.291-300 (2021).

Ntalampiras S., Potamitis I., "Automatic acoustic identification of respiratory diseases," *Evolving Systems*, vol. 12(1), pp.69-77 (2021).

Petrakis S., Bakarezos M., Tatarakis M., Benis E.P., Papadogiannis N.A., "Electron quantum path control in high harmonic generation via chirp variation of strong laser pulses," *Scientific Reports*, vol. 11(1) (2021).

Rigakis I., Potamitis I., Tatlas N.-A., Potirakis S.M., Ntalampiras S., "Treevibes: Modern tools for global monitoring of trees for borers," *Smart Cities*, vol. 4(1), pp.271-285 (2021).

Rigakis I.I., Varikou K.N., Nikolakakis A.E., Skarakis Z.D., Tatlas N.A., Potamitis I.G., "The e-funnel trap: Automatic monitoring of lepidoptera; a case study of tomato leaf miner," *Computers and Electronics in Agriculture*, vol. 185 (2021).

Simou N., Stefanakis N., Zervas P., "A universal system for cough detection in domestic acoustic environments," *European Signal Processing Conference*, pp.111-115 (2021).

Skoulakis A., Kaselouris E., Kavroulakis A., Karvounis C., Fitis I., Chatzakis J., Dimitriou V., Papadogiannis N.A., Tatarakis M., "Characterization of an x-ray source generated by a portable low-current x-pinch," *Applied Sciences*, vol. 11(23) (2021).

Skoulakis, A., G. Koundourakis, A. Ciardi, E. Kaselouris, I. Fitis, J. Chatzakis, M. Bakarezos et al. "High performance simulations of a single X-pinch." *Plasma Physics and Controlled Fusion* 64(2) (2021).

2020

Anagnostaki E., Mylona V., Kosma K., Parker S., Chala M., Cronshaw M., Dimitriou V., Tatarakis M., Papadogiannis N., Lynch E., Grootveld M., "A spectrophotometric study on light attenuation properties of dental bleaching gels: Potential relevance to irradiation parameters," *Dentistry Journal*, vol. 8(4) (2020).

Andrianaki, G., Grigoriadis, A., Benis, E.P. and Papadogiannis, N.A., "Pointing Characteristics of X-rays Generated by Relativistic Electron Acceleration via 45 TW fs Laser-He Plasma1," In *International Conference on Ultrafast Phenomena* (pp. Tu4A-12), Optical Society of America (2020)

Fitilis, I., Skoulakis, A., Kaselouris, E., Clark, E.L., Chatzakis, J., Bakarezos, M., Dimitriou, V., Papadogiannis, N.A. and Tatarakis, M., "Double Plasma Shock After Pinching in Table-Top Plasma Focus Device," In 2020 IEEE International Conference on Plasma Science (ICOPS), pp. 77-77 (2020)

Kaleris K., Orphanos Y., Bakarezos M., Dimitriou V., Tatarakis M., Mourjopoulos J., Papadogiannis N.A., "On the correlation of light and sound radiation following laser-induced breakdown in air," Applied Physics, vol. 53(43) (2020).

Kaleris, K., Orphanos, Y., Bakarezos, M., Papadogiannis, N. and Mourjopoulos, J." The effect of plasma geometry on the acoustic radiation of laser filaments," In Forum Acusticum, pp. 1819-1826 (2020).

Kaselouris E., Baroutsos A., Papadoulis T., Papadogiannis N.A., Tatarakis M., Dimitriou V., "A study on the influence of laser parameters on laser-assisted machining of Aisi H-13 steel," Key Engineering Materials, vol. 827, pp.92-97 (2020).

Kaselouris E., Fitilis I., Skoulakis A., Orphanos Y., Koundourakis G., Clark E.L., Chatzakis J., Bakarezos M., Papadogiannis N.A., Dimitriou V., Tatarakis M., "The importance of the laser pulse-ablator interaction dynamics prior to the ablation plasma phase in inertial confinement fusion studies," Mathematical, Physical and Engineering Sciences, vol. 378 (2020).

Kaselouris E., Skoulakis A., Fitilis I., Orphanos Y., Tazes I., Kosma K., Bakarezos M., Papadogiannis N., Tatarakis M., Dimitriou V., "Dynamics of the heat affected zone and induced strains in laser machining below ablation threshold," IOP Conference Series: Materials Science and Engineering, vol. 916(1) (2020).

Kaselouris E., Skoulakis A., Orphanos Y., Kosma K., Papadoulis T., Fitilis I., Clark E., Markopoulos A.P., Bakarezos M., Papadogiannis N.A., Tatarakis M., Dimitriou V., "Analysis of the heat affected zone and surface roughness during laser micromachining of metals," Key Engineering Materials, vol. 827, pp.122-127 (2020).

Koundourakis G., Skoulakis A., Kaselouris E., Fitilis I., Clark E.L., Chatzakis J., Bakarezos M., Vlahakis N., Papadogiannis N.A., Dimitriou V., Tatarakis M., "A numerical study on laboratory plasma dynamics validated by low current x-pinch experiments," Plasma Physics and Controlled Fusion, vol. 62(12) (2020).

Moustaizis, S.D., Bakaresos, E., Beg, F.N., Dangor, A.E., Dyson, A., Lee, P., Papadogiannis, N. and Tatarakis, M., "Laser based, intense, high rep.-rate x-ray source (1keV-10keV) from nsec to subpsec," In X-ray Lasers vol. 1996, pp. 475-479 (2020)

Ntalampiras S., Potamitis I., "A concept drift-aware dag-based classification scheme for acoustic monitoring of farms," International Journal of Embedded and Real-Time Communication Systems, vol. 11(1), pp.62-75 (2020).

Pasley J., Andrianaki G., Baroutsos A., Batani D., Benis E.P., Ciardi A., Cook D., Dimitriou V., Dromey B., Fitilis I., Gatti G., Grigoriadis A., Huault M., Hernandez J.A.P., Kaselouris E., Klimo O., Koenig M., Koundourakis G., Kucharik M., Limpouch J., Liska R., Lopez C.S., Malko S., Olmos-Miguelanez S., Orphanos Y., Ospina V., Papadogiannis N.A., Petrakis S., Psikal J., Rivetta M.S., Rodriguez-Conde M.-J., Santos J.J., Sinor M., Skoulakis A., Tazes I., Pascua L.T., Tsitou C., Vachal P., Volpe L., Vyskocil J., White S., Yeung M., Zerouli G., Tatarakis M., "Innovative education and training in high power laser plasmas (PowerLaPs) for plasma physics, high power laser matter interactions and high energy density physics: Experimental diagnostics and simulations," High Power Laser Science and Engineering, vol. 8 (2020).

Passalidis S., Ettliger O.C., Hicks G.S., Dover N.P., Najmudin Z., Benis E.P., Kaselouris E., Papadogiannis N.A., Tatarakis M., Dimitriou V., "Hydrodynamic computational modelling and simulations of collisional shock waves in gas jet targets," *High Power Laser Science and Engineering*, vol. 8 (2020).

Simou N., Mastorakis Y., Stefanakis N., "Towards Blind Quality Assessment of Concert Audio Recordings Using Deep Neural Networks," *Proceedings of International Conference on Acoustics, Speech and Signal Processing*, pp.3477-3481 (2020).

Simou N., Stefanakis N. and Zervas P., "A Universal System for Cough Detection in Domestic Acoustic Environments," in *Proceedings of European Signal Processing Conference* (2020).

Tazes I., Ong J.F., Tesileanu O., Tanaka K.A., Papadogiannis N.A., Tatarakis M., Dimitriou V., "Target normal sheath acceleration and laser wakefield acceleration particle-in-cell simulations performance on CPU & GPU architectures for high-power laser systems," *Plasma Physics and Controlled Fusion*, vol. 62(9) (2020).

2019

Kaleris K., Orfanos Y., Bakarezos M., Papadogiannis N., Mourjopoulos J., "Experimental and analytical evaluation of the acoustic radiation of femtosecond laser plasma filament sound sources in air," *Journal of the Acoustical Society of America*, vol. 146(3), pp.EL212-EL218 (2019).

Bakarezos, E., Orphanos, Y., Kaselouris, E., Dimitriou, V., Tatarakis, M. and Papadogiannis, N.A., "Laser-based interferometric techniques for the study of musical instruments," in *Computational Phonogram Archiving*, pp. 251-268 (2019).

Dimitriou, V., "New prospects in multiphysics modeling and simulations of matter dynamics of laser induced solid-to-plasma phase transitions," in *International Conference on Advanced Laser Technologies* (2019)

Kouzoupis S., Neocleous A., Athanassakis I., "Categorization of Mouse Ultrasonic Vocalizations Using Machine Learning Techniques," *Acoustics*, vol. 1(4), pp.837-846 (2019).

Ntalampiras S., Potamitis I., "A statistical inference framework for understanding music-related brain activity," *IEEE Journal on Selected Topics in Signal Processing*, vol. 13(2), pp.275-284 (2019).

Ntalampiras S., Potamitis I., "Classification of sounds indicative of respiratory diseases," *Communications in Computer and Information Science*, vol. 1000, pp.93-103 (2019).

Orphanos Y., Kosma K., Kaselouris E., Vainos N., Dimitriou V., Bakarezos M., Tatarakis M., Papadogiannis N.A., "Integrated nanosecond laser full-field imaging for femtosecond laser-generated surface acoustic waves in metal film-glass substrate multilayer materials," *Applied Physics A: Materials Science and Processing*, vol. 125(4) (2019).

Potamitis I., Rigakis I., Tatlas N.-A., "On Fresnel-Based Single and Multi Spectral Sensors for Insects' Wingbeat Recording," *20th International Conference on Solid-State Sensors, Actuators and Microsystems and Eurosensors XXXIII*, pp.1901-1904 (2019).

Potamitis I., Rigakis I., Tatlas N.-A., Potirakis S., "In-vivo vibroacoustic surveillance of trees in the context of the IoT," *Sensors*, vol. 19(6) (2019).

Potamitis, I., Rigakis, I., Tatlas, N.A. and Kouzoupis, S., "A novel electronic gate that identifies and counts bees based on their RGB backscattered light," In MATEC Web of Conferences, vol. 292, p. 01005 (2019).

Rigakis I., Potamitis I., Tatlas N.-A., Livadaras I., Ntalampiras S., "A multispectral backscattered light recorder of insects Wingbeats," Electronics, vol. 8(3) (2019).

Schirmer P.A., Mporas I., Potamitis I., "Evaluation of Regression Algorithms in Residential Energy Consumption Prediction," Proceedings of 3rd European Conference on Electrical Engineering and Computer Science, pp.22-25 (2019).

Stefanakis N., "Efficient implementation of superdirective beamforming in a half-space environment," Journal of the Acoustical Society of America, vol.145(3), pp.1293-1302 (2019).

Stefanakis N., Mastorakis Y., Alexandridis A., Mouchtaris A., "Automating mixing of user-generated audio recordings from the same event," Journal of the Audio Engineering Society, vol.67(4), pp.201-212 (2019).

Tzagkarakis C., Stefanakis N., Tzagkarakis G., "Impact sounds classification for interactive applications via discriminative dictionary learning," European Signal Processing Conference (2019).

Vafeiadis A., Fanioudakis E., Potamitis I., Votis K., Giakoumis D., Tzovaras D., Chen L., Hamzaoui R., "Two-dimensional convolutional recurrent neural networks for speech activity detection," Proceedings of the Annual Conference of the International Speech Communication Association (INTERSPEECH), pp.2045-2049 (2019).

2018

Bakarezos M., Tzianaki E., Petrakis S., Tsididis G., Loukakos P.A., Dimitriou V., Kosmidis C., Tatarakis M., Papadogiannis N.A., "Ultrafast laser pulse chirp effects on laser-generated nanoacoustic strains in Silicon," Ultrasonics, vol. 86, pp.14-19 (2018).

Eliopoulos P., Tatlas N.-A., Rigakis I., Potamitis I., "A "smart" trap device for detection of crawling insects and other arthropods in urban environments," Electronics, vol. 7(9) (2018).

Eliopoulos, P. and Potamitis, I., "Detection and estimation of population density of bean weevils (Coleoptera: Bruchidae) in stored pulses via bioacoustic analysis," In Proceedings of the 12th International Working Conference on Stored Product Protection (IWCSP), pp. 272-275 (2018)

Eliopoulos, P.A., Potamitis, I. and Rigakis, I., "Automated detection and monitoring of grain beetles using a "smart" pitfall trap," Julius-Kühn-Archiv, (463), pp.268-272 (2018)

Fanioudakis E., Geismar M., Potamitis I., "Mosquito wingbeat analysis and classification using deep learning," In Proceedings of European Signal Processing Conference, pp.2410-2414 (2018).

Kaselouris E., Dimitriou V., Ftilis I., Skoulakis A., Koundourakis G., Clark E.L., Chatzakis J., Bakarezos M., Nikolos I.K., Papadogiannis N.A., Tatarakis M., "Preliminary investigation on the use of low current pulsed power Z-pinch plasma devices for the study of early stage plasma instabilities," Plasma Physics and Controlled Fusion, vol. 60(1) (2018).

Kaselouris, E., Papadoulis, T., Skoulakis, A., Baroutsos, A., Orphanos, Y., Bakarezos, E., Papadogiannis, N.A. and Dimitriou, V. "SIMULATIONS OF LASER ASSISTED MACHINING AND CONVENTIONAL CUTTING OF AISI H-13 STEEL," In 9th GRACM International Congress on Computational Mechanics (2018)

Ntalampiras S., Potamitis I., "Transfer learning for improved audio-based human activity recognition," Biosensors, vol. 8(3) (2018).

Ntalampiras, S. and Potamitis, I., "Emotion Prediction of Sound Events Based on Transfer Learning," In International Conference on Engineering Applications of Neural Networks, pp. 303-313 (2017)

Potamitis I., Rigakis I., Vidakis N., Petousis M., Weber M., "Affordable Bimodal Optical Sensors to Spread the Use of Automated Insect Monitoring," Journal of Sensors (2018).

Stefanakis N., Delikaris-Manias S., Mouchtaris A., "Acoustic beamforming in front of a reflective plane," European Signal Processing Conference, pp.26-30 (2018).

Stefanakis N., Mouchtaris A., "Normalization of Partly Overlapping Audio Recordings from the Same Event Based on Relative Signal Powers," International Conference on Acoustics, Speech and Signal Processing, pp. 3141-3145 (2018).

Theodorou T., Mporas I., Potamitis I., Fakotakis N., "Data-driven audio feature selection for audio quality recognition in broadcast news," ACM International Conference Proceeding Series (2018).

Zervas P., Kouzoupis S. and Stefanakis. N., "Evaluating a low-cost acoustic sensor for smart environments applications", Hellenic Institute of Acoustics, National Conference (2018).

Zervas, P., Bakarezos, E., Movsesian, A. and Papadogiannis, N., "Evaluating speech content using remote sound sensing techniques," In 11th European Congress and Exposition on Noise Control Engineering, Heraklion, Crete, Greece, pp. 27-31 (2018).

2017

Kaselouris E., Dimitriou V., Fitis I., Skoulakis A., Koundourakis G., Clark E.L., Bakarezos M., Nikolos I.K., Papadogiannis N.A., Tatarakis M., "The influence of the solid to plasma phase transition on the generation of plasma instabilities," Nature Communications, vol. 8(1) (2017).

Kaselouris, E., Dimitriou, V., Fitis, I., Skoulakis, A., Koundourakis, G., Clark, E.L., Chatzakis, J., Bakarezos, M., Nikolos, I.K., Papadogiannis, N.A. and Tatarakis, M., "Preliminary investigation on the use of low current pulsed power Z-pinch plasma devices for the study of early stage plasma instabilities," Plasma Physics and Controlled Fusion, 60(1), p.014031 (2017)

Kaselouris, E., Papadoulis, T., Variantza, E., Baroutsos, A. and Dimitriou, V., " A study of explicit numerical simulations in orthogonal metal cutting," In Solid State Phenomena, vol. 261, pp. 339-346 (2017).

Ntalampiras S., Potamitis I., "Emotion prediction of sound events based on transfer learning," Communications in Computer and Information Science, vol. 744, pp. 303-313 (2017).

Potamitis I., Eliopoulos P., Rigakis I., "Automated remote insect surveillance at a global scale and the internet of things," Robotics, vol. 6(3) (2017).

Potamitis I., Rigakis I., "Automated monitoring of Olive Orchards," CEUR Workshop Proceedings, vol. 2030, pp.237-242 (2017).

Potamitis I., Rigakis I., Tatlas N. A., "Automated surveillance of fruit flies," Sensors, vol. 17(1) (2017).

Psirofonis, P., Samaritakis, V., Eliopoulos, P. and Potamitis, I., " Use of unmanned aerial vehicles for agricultural applications with emphasis on crop protection: Three novel case-studies," Int. J. Agric. Sci. Technol, 5(1), pp.30-39 (2017).

Tzedaki, K., REVIEW| Singing the Body Electric: The Human Voice and Sound Technology. IASPM Journal, 7(1) (2017).