

Evaggelos N. Kaselouris**Detailed Curriculum Vitae****1. Personal details**

Date of birth:	25.05.1981
Birthplace:	Athens
Marital status	Single
Position:	Assistant Professor (on tenure) (ΦΕΚ 1812/τ.Γ'/17-07/2023)
Army duties:	Fulfilled
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Web:	https://scholar.google.gr/citations?user=2zDYZL8AAAAJ&hl=en (Google Scholar) https://orcid.org/0000-0002-7945-1140 (Orchid) https://www.scopus.com/authid/detail.uri?authorId=23004818400 (Scopus) https://www.researchgate.net/profile/Evaggelos-Kaselouris-2/stats (ResearchGate)
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2. Education

- Π03** PhD diploma, Technical University of Crete, School of Production Engineering and Management, Thesis titles: **09.2012-09.2016** «*Study of matter behaviour dynamics governed by the interaction with laser pulses and external strong currents*». <https://www.didaktorika.gr/eadd/handle/10442/39101>
- Π02** Master's degree in biomedical engineering, National Technical University of Athens and University of Patras, Specialization: Biomechanics of the Faculty of Mechanical Engineering (NTUA), General degree: 8,23. MSc thesis title: «*Investigation on biomechanical stresses and strains of a trochanteric fi-nail intramedullary implant fixation using the finite element method*». **10.2006-10.2008**
- Π01** National Technical University of Athens, Faculty of Applied Mathematics and Physical Sciences. General degree: 7,01. Thesis title: «*Experimental and theoretical investigation on the optical properties of skin (fluorescence, reflectivity) using laser pulses*». **10.2000-10.2006**

3. Research projects

- Π01** «HiPER». «European High Power laser Energy Research Facility – Preparatory Phase Study» funded by: **01.03.2011-28.04.2011** «HiPER Consortium Agreement» and «COLLABORATION AGREEMENT for HiPER-TECHNICAL WORK». (T.E.I. of Crete, Centre for Plasma Physics & Lasers - CPPL)
- Π02** “Archimedes Project III”, Innovative optoacoustic device for 3D spatiotemporal micro-characterization of composite material based on ultrafast laser pulses, (T.E.I. of Crete, Centre for Plasma Physics & Lasers - CPPL) **01.09.2012-30.11.2014**
- Π03** “HiPER-ETPA”, (T.E.I. of Crete, Centre for Plasma Physics & Lasers - CPPL) **01.09.2013-31.10.2014**
- Π04** “HiPER-ETPA”, (T.E.I. of Crete, Centre for Plasma Physics & Lasers - CPPL) **03.11.2014-31.12.2015**
- Π05** “Interdepartmental Centre for Plasma Physics & Lasers (CPPL Actions)”, (T.E.I. of Crete, Centre for Plasma Physics & Lasers- CPPL) **01.09.20163-0.09-2016**

- Π06** “Strengthening the Region of Crete Competitiveness in State of the art Medical Applications using secondary radiation of plasma-ultrahigh intensity lasers”, (T.E.I. of Crete, Centre for Plasma Physics & Lasers- CPPL).
11.10.2017-31.12.2017
- Π07** “ELI - LASER LAB Europe, HiPER & IPERION-CH.gr” (MIS) 5002735, (TEI Crete, Centre for Plasma Physics & Lasers - CPPL)
15.06.2018-31,12.2019
- Π08** Erasmus+“Innovative Education in High Power Laser Plasmas/Powerlaps”, (TEI of Crete, Centre for Plasma Physics & Lasers -CPPL)
19.09.2018-31.07.2019
- Π09** “Mitigation study of plasma instabilities in a Z-pinch device using dielectric coatings” (MIS) 5048186 in the framework of the program: «Support for researchers with an emphasis on young researchers» (Hellenic Mediterranean University, Institute of Plasma Physics & Lasers- IPPL)
24.02.2020-24.5.2021
- Π10** CarbonMusic - T2EΔK-01484, Research-Innovate-Create Project, fiber made Bouzouki design, Department of Music Technology and Acoustics, Hellenic Mediterranean University.
20.12.2021-20.09.2023
- Π11** «Pump-probe reflectivity studies of ultrashort laser-induced acoustic strains in layered materials», Funded by: Hellenic Foundation for Research and Innovation H.F.R.I. (Hellenic Mediterranean University, Institute of Plasma Physics & Lasers- IPPL)
01.02.2022-31.03.2023
- Π12** EUROfusion’s WPENR project «ENR-IFE-01-CEA, Advancing shock ignition for direct-drive inertial fusion”, (Hellenic Mediterranean University, Institute of Plasma Physics & Lasers- IPPL)
01.04.2022-31.12.2022
- Π13** TECHNO-CLS, MIS 101046458, Emerging technologies for crystal-based gamma-ray light sources (using acoustical waves) (Hellenic Mediterranean University, Institute of Plasma Physics & Lasers- IPPL).
04.11.2022-24.08.2023
- 2016 - today** Senior Researcher of the IPPL's simulation research group, participation in six successfully completed research proposals, in the Greek Research and Technology Network - GRNET (<https://hpc.grnet.gr/en/>): LaMIS, PluPS I-II and LaMIPlaS I, II, III, LaMPIOs, and in progress the proposal LaMPIOs II, Laser Matter/Plasma Interactions and Optoacoustic Simulations

4. Reviewer of peer-reviewed journals

- Optics and Laser technology, Results in Engineering, Computers in Biology and Medicine – **Elsevier**
- Engineering Reports – **Wiley**
- High Power Laser Science and Engineering – **Cambridge University Press**
- Applied Sciences, Materials, Sensors, Micromachines, Mathematics, Crystals, Designs, Axioms, Coatings, Algorithms, Metrology, Processes – **MDPI**
- Plasma Physics and Controlled Fusion, Physica Scripta, Journal of Instrumentation – **IOP Publishing**
- International Journal of Applied Mechanics and Engineering – **Sciendo**
- Journal of Zhejiang University SCIENCE A – **Springer**
- Journal of the Acoustical Society of America – **AIP Publishing**

5. Schools/seminars

- Attendance of the Erasmus intensive program "Applications of Electronics in Plasma Physics", on August 29-September 09, 2011 in Rethymno, organized by the Center for Plasma Physics and Lasers of the Faculty of Applied Sciences of TEI of Crete.
- Attendance of the Erasmus intensive program "An introduction to high power light-matter interactions", on June 30-July 11, 2014 in Rethymno, organized by the Center for Plasma Physics and Lasers.

6. Teaching experience

ΣΕ01 10.2011-02.2012	Laboratory collaborator in TEI Crete, Department of Music Technology and Acoustics engineering Laboratory course: <ul style="list-style-type: none"> • Electronic circuits
ΣΕ01 02.2012-06.2012	Laboratory collaborator in TEI Crete, Department of Music Technology and Acoustics engineering Laboratory courses: <ul style="list-style-type: none"> • Laboratory Physics-Waves • Microprocessors
ΣΕ01 10.2012-02.2013	Laboratory collaborator in TEI Crete, Department of Music Technology and Acoustics engineering and Department of Electronics Engineering. Laboratory courses: <ul style="list-style-type: none"> • Electronic circuits • Laboratory Physics-Waves • Optoelectronics and Laser
ΣΕ01 10.2014-02.2015	Laboratory collaborator in TEI Crete, Department of Music Technology and Acoustics engineering Laboratory courses: <ul style="list-style-type: none"> • Laboratory Physics-Waves • Digital Electronics
ΣΕ01 02.2015-06.2015	Laboratory collaborator in TEI Crete, Department of Music Technology and Acoustics engineering Laboratory course: <ul style="list-style-type: none"> • Laboratory Physics-Waves
ΣΕ01 10.2015-02.2016	Laboratory collaborator in TEI Crete, Department of Music Technology and Acoustics engineering Laboratory course: <ul style="list-style-type: none"> • Laboratory Physics-Waves
ΣΕ01 10.2016-02.2017	Laboratory collaborator in TEI Crete. Department of Music Technology and Acoustics engineering and Department of Natural Resources and Environmental Engineering Theory: <ul style="list-style-type: none"> • Environmental Statistics • Digital Electronics Laboratory courses: <ul style="list-style-type: none"> • Environmental Statistics
ΑΔ01 24.03.2017-30.06.2017	Tutoring of the course Special Chapters of Antennas, Propagation, Scattering, Radiation of Electromagnetic Waves in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Electronics Engineering of TEI Crete
ΑΔ02 09.10.2017-09.02.2018	Tutoring of the course Propagation of Electromagnetic Waves in waveguides in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Electronics Engineering of TEI Crete
ΑΔ03 16.04.2018-29.06.2018	Tutoring of the course Special Chapters of Antennas, Propagation, Scattering, Radiation of Electromagnetic Waves in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Electronics Engineering of TEI Crete
ΑΔ04 24.10.2018-28.06.2019	Tutoring of the courses Optoelectronics, Electromagnetic Compatibility and Antennas, Propagation, Scattering, Radiation of Electromagnetic Waves in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Electronics Engineering of TEI Crete
ΑΔ05 31.10.2019-07.02.2020	Tutoring of the course Digital Electronics (Theory and Laboratory) in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Music Technology and Acoustics of Hellenic Mediterranean University

- AΔ06**
06.11.2020-
12.02.2021 Tutoring of the courses Digital Electronics (Theory and Laboratory) and Finite Elements in Acoustics in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Music Technology and Acoustics of Hellenic Mediterranean University
- AΔ07**
18.10.2021-
11.02.2022 Tutoring of the courses Digital Electronics (Theory and Laboratory) and Finite Elements in Acoustics in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Music Technology and Acoustics of Hellenic Mediterranean University
- ΠΔ407**
21.02.22-
30.06.22 25% position of Adjunct Assistant Professor for tutoring the laboratory course «Laboratory Physics-Waves», in the Department of Music Technology and Acoustics of Hellenic Mediterranean University
- AΔ08**
01.11.22-
30.06.23 Tutoring of the courses Scientific Computing and Research Methods in Multimedia in the framework of the program "Acquisition of Academic Experience for New Holders of Doctoral Diploma" in the Department of Music Technology and Acoustics of Hellenic Mediterranean University
- EΔ01**
07-2018, 07-2019
and 10-2020 Teaching the laboratory courses "Laser matter interactions-Hands on FEM simulations Part I & II" and "Plasma Pinch-Hands on MHD simulations" and creating teaching material for Computational Modeling and Simulations in Laser Matter interactions, within the European Erasmus+ program intensive training of postgraduate students PowerLaPs. Teaching the laboratory course "Laser matter interactions- Hands on FEM and MHD simulations" within the framework of the first Training School of the European action COST Action TUMIEE (CA17126): Towards Understanding and Modeling Intense Electronic Excitation.

7. Research Distinctions

- Θ01** Thomaidion award 2008 και 2009 of NTUA for the conference papers: "Investigation on the distal screw of a
2008 trochanteric Fi-nail intramedullary implant in a healed femur", Third Congress of the Hellenic Society of
και Biomechanics, Conference Proceedings, Athens 26-28 September 2008 and "Investigation of the mechanical
2009 behavior of typical scaphoid fractures during their healing process using the finite element method", 2nd South-East European Conference on Computational Mechanics, 22–24 June 2009, Rhodes.
- 2014** The article: "Three dimensional transient behavior of thin films surface under pulsed laser excitation", V. Dimitriou, **E. Kaselouris**, Y. Orphanos, M. Bakarezos, N. Vainos, M. Tatarakis, N. A. Papadogiannis. Applied Physics Letters, Vol.103, 114104 (2013), was selected as Article of the month for April 2014 in applied physics from Advances in Engineering On-line Journal: (<https://advanceseng.com/applied-physics/three-dimensional-transient-behavior-thin-films-surface-pulsed-laser-excitation/>).
- 2018** The article: **E Kaselouris**, V Dimitriou, I Fitis, A Skoulakis, G Koundourakis, EL Clark, M Bakarezos, IK Nikolos, NA Papadogiannis, M Tatarakis, "The influence of the solid to plasma phase transition on the generation of plasma instabilities", *Nature Communications* 8, 1713 (2017), Impact Factor 12, was selected as one of the most important articles in the collection of nature communications plasma physics journals (<https://www.nature.com/collections/lhrzlgblpr>).
- 2020** The article: S. Passalidis, O. Ettlinger, G.S. Hicks, N.P. Dover, Z. Najmudin, E.P. Benis, **E. Kaselouris**, N.A. Papadogiannis, M. Tatarakis and V. Dimitriou, "Hydrodynamic computational modelling and simulations of collisional shockwaves in gas jet targets", *High Power Laser Science and Engineering*, 8, E7. was selected from the journal's editors [Editors' Picks](#).
- 2023** The article: **Kaselouris, E.**, Skoulakis, A., Dimitriou, V., Fitis, I., Chatzakis, J., Bakarezos, M., Papadogiannis, N, & Tatarakis., M. Progress on the electro–thermo–mechanical instability and its role as seed on plasma instabilities, *Plasma Physics and Controlled Fusion*, 64(10), 105008 (2022)." was selected by the scientific committee of the world-wide and high-profile Canadian organization Advances in Engineering in June 2023 as a pioneering scientific work in the scientific field of Applied Physics (<https://advanceseng.com/progress-electro-thermo-mechanical-instability-role-seed-plasma-instabilities/>).

The scientific work is reflected in numerous publications in scientific journals and conferences from 2007 until today: 37 articles in scientific journals with peer review (36 international+1 Greek), 2 chapters in a book, 35 articles in proceedings of scientific conferences with full text review and an additional 54 oral and written presentations at scientific conferences with abstract review.

8. Publications

8.1 Scientific Articles in International Peer-Reviewed Journals

- A01 M. Makropoulou, **E. Kaselouris**, E. Drakaki, A. A. Serafetinides, J. A. Sianoudis, A diffusion approximation model of light transport in multilayered skin tissue, *Proc. SPIE 6628, Diagnostic Optical Spectroscopy in Biomedicine IV*, 662818, (2007) DOI: <https://doi.org/10.1117/12.726876>
- A02 E. Drakaki, **E. Kaselouris**, M. Makropoulou, A.A. Serafetinides, A. Tsenga, A.J. Stratigos, A.D. Katsambas, C. Antoniou, Laser-Induced Fluorescence and Reflectance Spectroscopy for the Discrimination of Basal Cell Carcinoma from the Surrounding Normal Skin Tissue, *Skin Pharmacol. Physiol.* 22(3), 158-165, (2009) DOI: <https://doi.org/10.1159/000211912>
- A03 **E. N. Kaselouris**, D.T. Venetsanos, C.G. Provatidis, F.N. Xypnitos, V. Nikolaou, J. Lazarettos, N.E. Efstathopoulos, Investigation of a trochanteric fi-nail intramedullary implant fixation using the finite element method, *J. Orthop.* 6(4), e1, (2009) DOI: <http://www.jortho.org/2009/6/4/e1>
- A04 N. Efstathopoulos, V.S. Nikolaou, F.N. Xypnitos, D. Korres, I. Lazarettos, K. Panousis, **E. N. Kaselouris**, D. Venetsanos, C. Provatidis, Investigation on the distal screw of a Trochanteric Fi-Nail Intramedullary Implant Using a Simplified Finite Element Model, *Injury Int. J. Care Injured* 41(3), 259–265, (2010) DOI: <https://doi.org/10.1016/j.injury.2009.09.006>
- A05 E.V. Brilakis, **E. Kaselouris**, F. Xypnitos, C.G. Provatidis, N.E Efstathopoulos, Effects of foot posture to fifth metatarsal fractures' biomechanics. A Finite Element Study, *J. Foot Ankle Surg.* 51(6), 720-728, (2012) DOI: <https://doi.org/10.1053/j.jfas.2012.08.006>
- A06 Y. Orphanos, V. Dimitriou, **E. Kaselouris**, E. Bakarezos, N. Vainos, M. Tatarakis, and N.A. Papadogiannis, An integrated method for material properties characterization based on pulsed laser generated surface acoustic waves, *Microelectron. Eng.* 112, 249-254, (2013) DOI: <https://doi.org/10.1016/j.mee.2013.03.146>
- A07 V. Dimitriou, **E. Kaselouris**, Y. Orphanos, M. Bakarezos, N. Vainos, M. Tatarakis, and N. A. Papadogiannis, Three-dimensional transient behavior of thin films surface under pulsed laser excitation, *Appl. Phys. Lett.* 103, 114104, (2013) DOI: <https://doi.org/10.1063/1.4821274>
- A08 **E. Kaselouris**, I.K. Nikolos, Y. Orphanos, E Bakarezos, N. A. Papadogiannis, M. Tatarakis, V. Dimitriou, A Review of simulation methods of laser matter interactions focused on nanosecond laser pulsed systems, *J. Multiscale Model.* 05, 1330001, (2013) DOI: <https://doi.org/10.1142/S1756973713300013>
- A09 V. Dimitriou, **E. Kaselouris**, Y. Orphanos, E Bakarezos, N. Vainos, I.K. Nikolos, M. Tatarakis, N. A. Papadogiannis, The thermo-mechanical behavior of thin metal films on dielectric substrates under nanosecond laser pulse excitation above the thermoelastic regime, *Appl. Phys. A.* 118, 739-748, (2015) DOI: <https://doi.org/10.1007/s00339-014-8792-6>
- A10 **E. Kaselouris**, I.K. Nikolos, Y. Orphanos, E Bakarezos, N. A. Papadogiannis, M. Tatarakis, V. Dimitriou, Elastoplastic study of nanosecond-pulsed laser interaction with metallic films using 3D multiphysics fem modeling, *Int. J. Damage Mech.* 25(1) 42-55, (2016) DOI: <https://doi.org/10.1177/1056789515576553>
- A11 **E. Kaselouris**, E. Skarvelakis, I. K Nikolos, G. Stavroulakis, Y. Orphanos, E. Bakarezos, N. A Papadogiannis, M. Tatarakis and Vasilios Dimitriou, Simulation of the Transient Behavior of Matter with Characteristic Geometrical Variations & Defects Irradiated by Nanosecond Laser Pulses Using FEA, *Key Eng. Mater.* 665 157-160, (2016) DOI: <https://doi.org/10.4028/www.scientific.net/KEM.665.157>
- A12 **E. Kaselouris**, T. Papadoulis, E. Variantza, A. Baroutsos, V. Dimitriou, A study of explicit numerical simulations in orthogonal metal cutting, *Solid State Phenom.* 261, 339-346, (2017) DOI: <https://doi.org/10.4028/www.scientific.net/SSP.261.339>
- A13 **E. Kaselouris**, V. Dimitriou, I. Fitis, A. Skoulakis, G. Koundourakis, I. K. Nikolos, E. L. Clark, M. Bakarezos, N. A. Papadogiannis and M. Tatarakis, The influence of the solid to plasma phase transition on the generation of plasma instabilities, *Nature Commun.* 8 (1), 1713, (2017) DOI: <https://doi.org/10.1038/s41467-017-02000-6>
- A14 **E. Kaselouris**, V. Dimitriou, I. Fitis, A. Skoulakis, G. Koundourakis, I. K. Nikolos, E. L. Clark, J. Chatzakis, M. Bakarezos, N. A. Papadogiannis and M. Tatarakis, Preliminary investigation on the use of low current pulsed power Z-pinch plasma devices for the study of early stage plasma instabilities, *Plasma Phys. Contr. Fusion* 60 (1), 014031, (2018) DOI: <https://doi.org/10.1088/1361-6587/aa8ab0>

- A15 E.V. Brilakis, **E. Kaselouris**, K. Markatos, D. Mastrokalos, C. Provatidis, N. Efstathopoulos, E.Chronopoulos, Mitchell's osteotomy augmented with bio-absorbable pins for the treatment of hallux valgus: A comparative finite element study, *J. Musculoskelet. Neuronal Interact.* 19(2): 234–244 (2019) DOI: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6587079/>
- A16 J. Pasley, G. Andrianaki, A. Baroutsos, D. Batani, E.P. Benis, M. Borghesi, E. Clark, D. Cook, E. D'Humieres, V. Dimitriou, B. Dromey, M. Ehret, I. Fitis, A. Grigoriadis, S. Kar, **E. Kaselouris**, O. Klimo, M Koenig, K. Kosma, G. Koundourakis, M. Kucharik, A. Lavery, J. Limpouch, Y. Orphanos, N.A. Papadogiannis, S. Petrakis, D. Riley, M.S. Rivetta, L.T. Pascual, J.J. Santos, A. Skoulakis, I. Tazes, V. Tikhonchuk, J. Trela, C. Tsitou, L. Volpe, S. White, M. Yeung, and M. Tatarakis, Innovative Education and Training in High Power Laser Plasmas (PowerLaPs) for Plasma Physics, High Power Laser Matter Interactions and High Energy Density Physics - Theory and Experiments, *High Power Laser Sci.* 7, e23 (2019) DOI: <https://doi.org/10.1017/hpl.2019.7>
- A17 Y. Orphanos, K. Kosma, **E. Kaselouris**, N. Vainos, V. Dimitriou, M. Bakarezos, M. Tatarakis and N. A. Papadogiannis, Integrated nanosecond laser full-field imaging for femtosecond laser generated surface acoustic waves in metal film-glass substrate multilayer materials, *Appl. Phys. A.* 125, 269, (2019) DOI: <https://doi.org/10.1007/s00339-019-2552-6>
- A18 **E. Kaselouris**, A. Baroutsos, T. Papadoulis, N.A. Papadogiannis, M. Tatarakis, and V. Dimitriou, A study on the influence of laser parameters on laser-assisted machining of AISI H-13 steel, *Key Engineering Materials* 827, 92-97, (2020). DOI: doi.org/10.4028/www.scientific.net/KEM.827.92
- A19 **E. Kaselouris**, A. Skoulakis, Y. Orphanos, K. Kosma, T. Papadoulis, I. Fitis, E. Clark, A.P. Markopoulos, M. Bakarezos, N.A. Papadogiannis, M. Tatarakis, and V. Dimitriou, Analysis of the heat affected zone and surface roughness during laser micromachining of metals, *Key Engineering Materials* 827, 122-127, 2020. DOI: doi.org/10.4028/www.scientific.net/KEM.827.122
- A20 J. Pasley, G. Andrianaki, A. Baroutsos, D. Batani, E.P. Benis, A. Ciardi, D. Cook, V. Dimitriou, B. Dromey, I. Fitis, G. Gatti, A. Grigoriadis, M. Huault, J.A.P Hernández, **E. Kaselouris**, O. Klimo, M. Koenig, G. Koundourakis, M. Kucharik, J. Limpouch, R. Liska, C.S. Lopez, S. Malko, S.O. Migueláñez, Y. Orphanos, V. Ospina, N.A. Papadogiannis, S. Petrakis, J. Psikal, M.S. Rivetta, M.J.R. Conde, J.J. Santos, M. Sinor, A. Skoulakis, I. Tazes, L.T. Pascual, C. Tsitou, P. Vachal, L. Volpe, J. Vyskocil, S. White, M. Yeung, G. Zerouli, M. Tatarakis, "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*, 8, e5, (2020). DOI: <https://doi.org/10.1017/hpl.2020.4>
- A21 S. Passalidis, O. Ettliger, G.S. Hicks, N.P. Dover, Z. Najmudin, E.P. Benis, **E. Kaselouris**, N.A. Papadogiannis, M. Tatarakis and V. Dimitriou, Hydrodynamic computational modelling and simulations of collisional shockwaves in gas jet targets, *High Power Laser Science and Engineering*, 8, E7, (2020). DOI: <https://doi.org/10.1017/hpl.2020.5>
- A22 G. Koundourakis, A. Skoulakis, **E. Kaselouris**, I. Fitis, E. L. Clark, J. Chatzakis, M. Bakarezos, N. Vlahakis, N. A. Papadogiannis, V. Dimitriou, M. Tatarakis, A numerical study on laboratory plasma dynamics validated by low current x-pinch experiments, *Plasma Phys. Contr. Fusion* 62 125012, (2020). DOI: <https://doi.org/10.1088/1361-6587/abbefb>
- A23 **E. Kaselouris**, I. Fitis, A. Skoulakis, Y. Orphanos, G. Koundourakis, E. L. Clark, J. Chatzakis, M. Bakarezos, N. A. Papadogiannis, V. Dimitriou, M. Tatarakis, The importance of the laser pulse-ablator interaction dynamics prior to the ablation plasma phase in inertial confinement fusion studies, *Philosophical Transactions of the Royal Society A* 378, 20200030, (2020). DOI: <https://doi.org/10.1098/rsta.2020.0030>
- A24 **E. Kaselouris**, K. Kosma, Y. Orphanos, A. Skoulakis, I. Fitis, A. P. Markopoulos, M. Bakarezos, M. Tatarakis, N. A. Papadogiannis, V. Dimitriou, Downscaled Finite Element Modeling of Metal Targets for Surface Roughness Level under Pulsed Laser Irradiation, *Appl. Sci.* 11, 1253, (2021). DOI: <https://doi.org/10.3390/app11031253>
- A25 **E. Kaselouris**, G. Tamiolakis, I. Fitis, A. Skoulakis, V. M. Dimitriou, M. Tatarakis, Instability growth mitigation study of a dielectric coated metallic wire in a low current Z-pinch configuration, *Plasma Phys. Contr. Fusion* 63, 085010, (2021). DOI: <https://doi.org/10.1088/1361-6587/ac0112>
- A26 E. L. Clark, A. Grigoriadis, S. Petrakis, I. Tazes, G. Andrianaki, A. Skoulakis, Y. Orphanos, **E. Kaselouris**, I. Fitis, J. Chatzakis, E. Bakarezos, V. Dimitriou, E. P. Benis, N. A. Papadogiannis and M. Tatarakis, 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*, 9, e53, (2021). <https://doi.org/10.1017/hpl.2021.38>

- A27 A. Skoulakis, **E. Kaselouris**, A. Kavroulakis, C. Karvounis, I. Fitis, J. Chatzakis, V. Dimitriou, N. A. Papadogiannis, M. Tatarakis, Characterization of an X-ray Source Generated by a Portable Low-Current X-Pinch, *Appl. Sci.* 11, 11173 (2021). DOI: <https://doi.org/10.3390/app112311173>
- A28 A. Skoulakis, G. Koundourakis, A. Ciardi, **E. Kaselouris**, I. Fitis, J. Chatzakis, M. Bakarezos, N. Vlahakis, N. A. Papadogiannis, M. Tatarakis, V. M. Dimitriou, High performance simulations of a single X-pinch, *Plasma Phys. Contr. Fusion* 64, 025003 (2022). DOI: <https://doi.org/10.1088/1361-6587/ac3deb>
- A29 **E. Kaselouris**, M. Bakarezos, M. Tatarakis, N.A. Papadogiannis, and V. Dimitriou, A review of finite element studies in string musical instruments, *Acoustics* 4, 183-202 (2022). DOI: <https://doi.org/10.3390/acoustics4010012>
- A30 **E. Kaselouris**, C. Alexandraki, M. Bakarezos, M. Tatarakis, N. A. Papadogiannis, V. Dimitriou, A Detailed FEM Study on the Vibro-acoustic Behaviour of Crash and Splash Musical Cymbals, *Int. J. Circuits, Syst. Signal Process.* 16, 948-955 (2022). DOI: <https://npublications.com/journals/articles.php?id=390>
- A31 I. Tazes, S. Passalidis, **E. Kaselouris**, I. Fitis, M. Bakarezos, N.A. Papadogiannis, M. Tatarakis, V. Dimitriou, A computational study on the optical shaping of gas targets via blast wave collisions for magnetic vortex acceleration, *High Power Laser Science and Engineering* 10, 2022, e31 <https://doi.org/10.1017/hpl.2022.16>
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- ΠΕ15 M. Bakarezos, Υ. Orphanos, I. Tzianaki, **V. Kaselouris**, V. Dimitriou, G.D. Tsibidis, P.A. Loukakos, M. Tatarakis, N.A. Papadogiannis, Ultrafast dynamics and imaging of laser-generated nano-acoustic waves in metal/substrate layered systems, PHOTONICA2015, 5th International school and conference on photonics, Belgrade, Serbia, 24-28 August 2015.
- ΠΕ16 **E. Kaselouris**, E. Skarvelakis, I. K. Nikolos, G. E. Stavroulakis, Υ. Orphanos, E. Bakarezos, N. A. Papadogiannis, M. Tatarakis and V. Dimitriou, Simulation of the Transient Behavior of Matter with Characteristic Geometrical Variations & Defects Irradiated by Nanosecond Laser Pulses Using FEA, 14th International conference on Fracture and Damage Mechanics, Budva, Montenegro, 21-23 September 2015.
- ΠΕ17 Α. Σκουλάκης, Ι. Φυτίλης, S.M. Hassan, E.L. Clark, **Ε. Κασελούρης**, Γ. Ανδρουλάκης, Θ.Γ. Παπαδουλής, Β. Δημητρίου, Ι. Χατζάκης, P. Lee, Κ. Πετρίδης, Ι.Κ. Νικολός, Ε. Δρακάκης, Κ. Κοσμίδης, Μ. Μπακαρέζος, Ν.Α. Παπαδογιάννης και Μ. Ταταράκης, Φορητή πηγή νετρονίων εστίασης πυκνού πλάσματος, Αρχιμήδης III-Ενίσχυση Ερευνητικών Ομάδων στο ΤΕΙ Κρήτης, Ηράκλειο, Διημερίδα 28-29 Σεπτεμβρίου, 2015.
- ΠΕ18 Μ. Ταταράκης, Α. Σκουλάκης, Ι. Φυτίλης, S.M. Hassan, E.L. Clark, **Ε. Κασελούρης**, Θ.Γ. Παπαδουλής, Β. Δημητρίου, Ι. Χατζάκης, P. Lee, Κ. Πετρίδης, Γ. Ανδρουλάκης, Ι.Κ. Νικολός, Ε. Δρακάκης, Κ. Κοσμίδης, Μ. Μπακαρέζος, Ν.Α. Παπαδογιάννης, Σχεδίαση και ανάπτυξη πηγής νετρονίων με εφαρμογή στην ανίχνευση εκρηκτικών υλών, Αρχιμήδης III-Ενίσχυση Ερευνητικών Ομάδων στο ΤΕΙ Κρήτης, Ηράκλειο, Διημερίδα 28-29 Σεπτεμβρίου, 2015.
- ΠΕ19 Β. Δημητρίου, **Ε. Κασελούρης**, Γ. Ορφανός, Ε. Μπακαρέζος, Μ. Ταταράκης και Ν. Α. Παπαδογιάννης, Δυναμική ανάλυση της συμπεριφοράς λεπτών μεταλλικών υμενίων κατά την αλληλεπίδραση με ns παλμούς Laser με τη Μέθοδο των Πεπερασμένων Στοιχείων – FEM, Αρχιμήδης III-Ενίσχυση Ερευνητικών Ομάδων στο ΤΕΙ Κρήτης, Ηράκλειο, Διημερίδα 28-29 Σεπτεμβρίου, 2015.
- ΠΕ20 Ν. Α. Παπαδογιάννης, Γ. Ορφανός, **Ε. Κασελούρης**, Ι. Τζιανιάκη, Γ. Τσιμπίδης, Π. Α. Λουκάκος, Ν. Βάινος, Κ. Κοσμίδης, Β. Δημητρίου, Ε. Μπακαρέζος, Μ. Ταταράκης «Νανοακουστικά κύματα με τη χρήση υπερβραχέων παλμών LASER και οι εφαρμογές τους στο χαρακτηρισμό υλικών, τα κύρια επιστημονικά αποτελέσματα του υποέργου 19», Αρχιμήδης III-Ενίσχυση Ερευνητικών Ομάδων στο ΤΕΙ Κρήτης, Ηράκλειο, Διημερίδα 28-29 Σεπτεμβρίου, 2015.
- ΠΕ21 **E. Kaselouris**, E. Skarvelakis, Υ. Orphanos, M. Bakarezos, M. Tatarakis, N.A. Papadogiannis and V. Dimitriou, FEM simulation of SAWs dynamics generated by ns Laser pulses in thin films as a diagnostic of defects in matter, ScinTE2015 International Conference Science in Technology, Athens, Poster, 5-7 November 2015.
- ΠΕ22 **E. Kaselouris**, T. Papadoulis, E. Variantza, A. Baroutsos, V. Dimitriou, A study of explicit numerical simulations in orthogonal metal cutting, 9th International Congress on Precision Machining (ICPM 2017), Athens, 6-9 September 2017.
- ΠΕ23 G. Andrianaki, A. Grigoriadis, I. Tazes, E. L. Clark, I. Fitis, A. Skoulakis, **E. Kaselouris**, M. Bakarezos, I. K. Nikolos, V. Dimitriou, E. P. Benis, N. A. Papadogiannis and M. Tatarakis, Energetic particles source using the Zeus 45 TW laser at CPPL, 35th European Conference on Laser interaction with matter, Poster, Rethymno, 22-26 October 2018.

- ΠΕ24 G. Koundourakis, A. Skoulakis, **E. Kaselouris**, I. Ftilis, M. Bakarezos, E.L. Clark, N. Vlahakis, N.A. Papadogiannis, V. Dimitriou and M. Tatarakis, Computational study of plasma dynamic evolution produced by low current table-top pinch plasma devices, 35th European Conference on Laser interaction with matter, Poster, Rethymno, 22-26 October 2018.
- ΠΕ25 **E. Kaselouris**, Y. Orphanos, K. Kosma, V. Dimitriou, M. Bakarezos, M. Tatarakis and N. A. Papadogiannis, Surface Acoustic Waves generated on thin films after irradiation by femtosecond laser pulses, 35th European Conference on Laser interaction with matter, Poster, Rethymno, 22-26 October 2018.
- ΠΕ26 **E. Kaselouris**, I. Ftilis, A. Skoulakis, G. Koundourakis, V. Dimitriou, E. Bakarezos, E.L. Clark, N.A. Papadogiannis and M. Tatarakis «Pinch ETM instabilities», Towards understanding and modelling intense electronic excitation, COST Action 17126, TUMIEE, Porto, Portugal March 4, 2019.
- ΠΕ27 Y. Orphanos, M. Bakarezos, K. Kosma, E. Tzianaki, **E. Kaselouris**, V. Dimitriou, G. Tsibidis, P.A. Loukakos, N. Vainos, M. Tatarakis and N. A. Papadogiannis, «Ultrafast laser-generated nano-acoustics waves, experimental methods for validation of theoretical simulations», Towards understanding and modelling intense electronic excitation, COST Action 17126, TUMIEE, Porto, Portugal March 4, 2019.
- ΠΕ28 V. Dimitriou, **E. Kaselouris**, Y. Orphanos, M. Bakarezos, N. A. Papadogiannis and M. Tatarakis. “Simulations on matter dynamics under fs laser excitation”, Towards understanding and modelling intense electronic excitation, COST Action 17126, TUMIEE, Porto, Portugal, March 4, 2019.
- ΠΕ29 E. L. Clark, A. Grigoriadis, I. Tazes, G. Andrianaki, I. Ftilis, S. Petrakis, A. Skoulakis, **E. Kaselouris**, T.G. Maris, I. Tsiapa, M. Bakarezos, I. K. Nikolos, V. Dimitriou, E. P. Benis, N. A. Papadogiannis and M. Tatarakis, Novel gel dosimetry diagnostic for the secondary sources of ZEUS 45TW laser system at CPPL, 3rd European Conference on Plasma Diagnostics (ECPD), Poster, Lisbon, Portugal, 6-9 May 2019.
- ΠΕ30 E. L. Clark, A. Grigoriadis, I. Tazes, G. Andrianaki, I. Ftilis, S. Petrakis, A. Skoulakis, **E. Kaselouris**, T.G. Maris, I. Tsiapa, M. Bakarezos, I. K. Nikolos, V. Dimitriou, E. P. Benis, N. A. Papadogiannis and M. Tatarakis, Secondary sources generated with the ZEUS 45TW laser system at CPPL, The 2019 International conference on applications of nuclear techniques (Crete 2019), Poster, June 9-15, 2019.
- ΠΕ31 **E. Kaselouris**, A. Baroutsos, T. Papadoulis, N.A. Papadogiannis, M. Tatarakis, and V. Dimitriou, A study on the influence of laser parameters on laser-assisted machining of AISI H-13 steel, 18th international conference on fracture and damage mechanics (FDM 2019), 16-18 September 2019.
- ΠΕ32 **E. Kaselouris**, A. Skoulakis, Y. Orphanos, K. Kosma, T. Papadoulis, I. Ftilis, E. Clark, A.P. Markopoulos, M. Bakarezos, N.A. Papadogiannis, M. Tatarakis, and V. Dimitriou, Analysis of the heat affected zone and surface roughness during laser micromachining of metals, 18th international conference on fracture and damage mechanics (FDM 2019), 16-18 September 2019.
- ΠΕ33 S. Passalidis, O. Ettlinger, G. Hicks, N. Dover, Z. Najmudin, E.P. Benis, **E. Kaselouris**, N.A. Papadogiannis, M. Tatarakis, V. Dimitriou, Hydrodynamic modelling and simulations of collisional shockwaves in gas targets for the optimisation of collisionless shock acceleration of ions, Poster, 15-20 September 2019, Prague, Czech Republic.
- ΠΕ34 M. Tatarakis, A. Grigoriadis, G. Andrianaki, I. Tazes, S. Petrakis, **E. Kaselouris**, Y. Orphanos, I. Ftilis, K. Kosma, A. Skoulakis, E. Clark, I. Chatzakis, M. Bakarezos, V. Dimitriou, N. A. Papadogiannis, High Power laser-plasma secondary sources and their potential applications in IPPL, access point of the Hellenic Research Infrastructure “HELLAS-CH”, Towards understanding and modelling intense electronic excitation, Poster, Warsaw, Poland, 17-18 February 2020.
- ΠΕ35 I. Tazes, K. Kaleris, J. F. Ong, O. Tesileanu, K. A. Tanaka, A. Grigoriadis, G. Andrianaki, T. Papadoulis, S. Passalidis, A. Baroutsos, G. Koundourakis, Y. Orphanos, I. Ftilis, K. Kosma, A. Skoulakis, S. Petrakis, E. Clark, **E. Kaselouris**, I. Chatzakis, E. Bakarezos, N.A. Papadogiannis, M. Tatarakis, V. Dimitriou, “Simulations of the experimental research activities in IPPL (Institute of Plasma Physics & Lasers)”, Towards understanding and modelling intense electronic excitation, Poster, Warsaw, Poland, 17-18 February 2020.
- ΠΕ36 V. Dimitriou, **E. Kaselouris**, I. Tazes, J. F. Ong, O. Tesileanu, K. A. Tanaka, A. Grigoriadis, G. Andrianaki, S. Petrakis, Y. Orphanos, I. Ftilis, K. Kosma, A. Skoulakis, N. A. Papadogiannis, M. Tatarakis, “Multiphysics modelling and simulations from solid to plasma regime for MHD and PIC studies”, Towards understanding and modelling intense electronic excitation, Poster, Warsaw, Poland, 17-18 February 2020.
- ΠΕ37 I. Ftilis, A. Skoulakis, **E. Kaselouris**, E. L. Clark, J. Chatzakis, M. Bakarezos, V. Dimitriou, N. A. Papadogiannis, M. Tatarakis, “Double plasma shock after pinching in table-top plasma focus device”, 47th IEEE International Conference on Plasma Science (ICOPS), Singapore (Virtual), 6-10 December 2020.
- ΠΕ38 I. Ftilis, **E. Kaselouris**, A. Skoulakis, A. Kavroulakis, G. Koundourakis, E. L. Clark, M. Bakarezos, J. Chatzakis, N. A. Papadogiannis, V. Dimitriou, M. Tatarakis, “Influence of z-pinch wire geometrical characteristics on the generation of the electrothermomechanical and plasma instabilities”, 47th IEEE International Conference on Plasma Science (ICOPS), Singapore (Virtual), 6-10 December 2020.

- ΠΕ39 I. Tazes, G. Andrianaki, A. Grigoriadis, S. Passalidis, A. Skoulakis, **E. Kaselouris**, J. Chatzakis I. Ftilis, M. Bakarezos, E. Clark, E.P. Benis, V. Dimitriou, N.A. Papadogiannis, M. Tatarakis, Development and optimization of laser-induced particle accelerators in IPPL, 17th Direct Drive and Fast Ignition Workshop, May 3-5, 2022, Madrid, Spain.
- ΠΕ40 I. Tazes, G. Andrianaki, A. Grigoriadis, S.Petrakis, A. Skoulakis, Y. Orphanos, **E. Kaselouris**, I. Ftilis, E.L. Clark, E. Bakarezos, E. P. Benis, V. Dimitriou, N. A. Papadogiannis and Michael Tatarakis, Particle Acceleration and Radiation Emission Studies at IPPL, TUMIEE COST Action 17126, MEETING IN HERAKLION (CRETE, GREECE), 18 July 2022.
- ΠΕ41 K. Kosma, K. Kaleris, **E. Kaselouris**, M. Kaniolakis-Kaloudis, M. Bakarezos, M. Tatarakis, V. Dimitriou, and N. A.Papadogiannis, Pump-probe Reflectivity Studies of Ultrashort Laser-induced Acoustic Strains in Layered Materials, XXXVI Pan-Hellenic conference on Solid-State Physics and Materials Science, Heraklion, 26-28 September 2022.
- ΠΕ42 K. Kaleris, **E. Kaselouris**, E. Kaniolakis-Kaloudis, V. Dimitriou, M. Bakarezos, M. Tatarakis, N. A. Papadogiannis, Dynamic acoustic bending of crystalline structures for the generation of gamma radiation via undulation of super-relativistic electron/positron beams, Towards understanding and modelling intense electronic excitation, COST Action CA17126, Hamburg, Germany, 9 December 2022.
- ΠΕ43 **E. Kaselouris**, H. Papadaki, K. Kaleris, I. Tazes et al, Multiphysics modelling and simulations of the experiments in IPPL, Towards understanding and modelling intense electronic excitation, Poster, COST Action CA17126, Hamburg, Germany, 9 December 2022.
- ΠΕ44 K. Kaleris, **E. Kaselouris**, E. Kaniolakis-Kaloudis et al., Progress on dynamic structural lattice modulation of single crystals for CLS applications, International Conference "Dynamics of Systems on the Nanoscale" (DYSON), April 24-26, 2023, Prague, Czech Republic.
- ΠΕ45 H. Papadaki, **E. Kaselouris** et al., Ablator - laser preheating simulations for diagnostic optimization, 5th European Conference on Plasma Diagnostics (ECPD), Poster, 23-27 April 2023, Rethymno, Greece.
- ΠΕ46 I. Mirza, Y.Levy, J. Sladek, H. Papadaki, E. Kaselouris, V. Dimitriou, N. Bulgakova, Coherence Effects in LIPSS Formation on Silicon upon Picosecond Laser Pulse Irradiations, CLEO®/Europe-EQEC, 26-30 June 2023, Munich, Germany.
- ΠΕ47 E. Kaniolakis-Kaloudis, K. Kaleris, E. Kaselouris et al., Efficient optoacoustic transduction for ultra-high-frequency strain generation in nanostructured materials, XXXVII Pan-Hellenic conference on Solid-State Physics and Materials Science, Poster, Thessaloniki, 17-20 September 2023.
- ΠΕ48 V. Dimitriou, **E. Kaselouris**, Y. Orphanos, E. Bakarezos, N. Vainos, N. A. Papadogiannis, and M. Tatarakis, V. Dimitriou Invited talk: "FEM Modeling for the study of the dynamics of Laser-matter Interactions in thin metal film/substrate systems", Drive Innovation with Simulation, 6th PhiloNet CAE Conference, Megaron, Athens, 23 May 2013.
- ΠΕ49 V. Dimitriou, **E. Kaselouris**, IK. Nikolos, Y. Orphanos, E. Bakarezos, NA. Papadogiannis and M. Tatarakis, V. Dimitriou Invited talk: "Simulations of ns laser matter interactions (the phase change problem)", Workshop LMJ-PETAL and COST, "Developing the Physics and the Scientific Community for Inertial Confinement Fusion at the time of NIF ignition", Bordeaux, France, 5-7 March, 2014.
- ΠΕ50 V. Dimitriou, **E. Kaselouris**, I. Ftilis, A. Skoulakis, Y. Orphanos, M. Bakarezos, N. Papadogiannis and M. Tatarakis, V. Dimitriou Invited talk: Studying the initial stages of plasma generation using ns laser pulsed systems and strong currents, SPIE. OPTICS + OPTOELECTRONICS, Prague, Czech Republic 13-16 April 2015.
- ΠΕ51 N. A. Papadogiannis, M. Bakarezos, I. Tzianaki, Y. Orphanos, **E. Kaselouris**, V. Dimitriou, M. Tatarakis, N. Papadogiannis Invited talk: Monitoring matter dynamics under ultrafast laser excitation, CECAM workshop on Multi-scale modelling of matter under extreme irradiation, Dublin, 17-20 June 2015.
- ΠΕ52 **E. Kaselouris**, I. Ftilis, A. Skoulakis, G. Koundourakis, V. Dimitriou E. L. Clark, M. Bakarezos, N. A. Papadogiannis and M. Tatarakis, M. Tatarakis Invited talk: Plasma instabilities: the influence on plasma instabilities during the solid-plasma phase transition, Conference: 27th Symposium on Plasma Physics and Technology, Prague, 20-23 June 2016.
- ΠΕ53 **E. Kaselouris**, V. Dimitriou, I. Ftilis, A. Skoulakis, G. Koundourakis, I. K. Nikolos, E. L. Clark, M. Bakarezos, N. A. Papadogiannis and M. Tatarakis, M. Tatarakis Invited talk: "The influence of the solid to plasma phase transition on the generation of plasma instabilities", 44th EPS Conference on Plasma Physics, Belfast, 26-30 June 2017.

ΠΕ54 Y. Orphanos, **E. Kaselouris**, K. Kosma, M. Bakarezos, N. Vainos, V. Dimitriou, M. Tatarakis and N.A. Papadogiannis, *N. Papadogiannis Invited talk: "Ultrafast Laser generated Rayleigh surface acoustic waves: physics and applications on material diagnosis"*, 7th International Conference "Micro&Nano 2018", Aristotle University of Thessaloniki 5-7 November 2018.

9. h-index and citations

- GoogleScholar: **h-index: 12, Citations: 413**
<https://scholar.google.gr/citations?user=2zDYZL8AAAAJ&hl=en>
- SCOPUS, Author ID: 23004818400, **h-index: 10, Citations: 275**
<https://www.scopus.com/authid/detail.uri?authorId=23004818400>
<https://orcid.org/0000-0002-7945-1140>
- ResearchGate, **h-index: 10, Citations: 371**
<https://www.researchgate.net/profile/Evaggelos-Kaselouris-2/stats>

10. Foreign Languages, Technical and Special Knowledge and Skills

T04 English:	First certificate in English
T05 French:	Sorbonne I
Operational systems:	Windows -X, LINUX -X
Programming:	Matlab, Visual Basic, C, C++, Pascal, Fortran
Software knowledge:	ANSYS Multiphysics, ANSYS-Workbench, LS-DYNA, FLUENT CFD, Comsol Multiphysics, PLUTO MHD Code, GORGON MHD code, Materialise Mimics, Matlab-Simulink, Inventor, CorelDRAW

From 2012 to present::

- Participation in the development, supervision, and maintenance of the Website www.cppl.teicrete.gr of the CPPL Plasma and Laser Physics Research Center, TEI of Crete.
- Participation in the development and Supervision of the Website <https://powerlaps.chania.teicrete.gr/> within the framework of the PowerLaPs program.
- Participation in the development, supervision, and maintenance of the Website <https://ippl.hmu.gr/> of the Institute of Plasma and Laser Physics IPPL, of the Hellenic Mediterranean University.
- Parallel processing of computational simulation models in High Performance Computing – HPC. Install and manage programs in MPI environments for HPC.

11. Research activity and interests

The main scientific and research interests concern the computational modeling and simulation of problems in the fields of applied mathematics and physics in the areas of mechanics and vibrational acoustics as well as heat transfer and electromagnetism, and more generally in the coupling of these fields which can be described with the help of differential equations. The published articles concern:

- modeling and simulation of phenomena of multiple coupled fields of physics and mechanics (multiphysics), with primary numerical method the finite element method, in vibrational acoustics and musical acoustics and technology with applications in the study of musical instruments
- the interaction of laser pulses with matter and fluid/plasma and the propagation and generation of acoustic waves at the microscopic and nano-scopic level
- the study of vibrational and acoustic behavior in all states of matter (solid, liquid, gas and plasma) through pulsed powered devices
- mechanical constructions and laser assisted machining for the study of acoustomechanical behavior at a macroscopic and microscopic level but also for the detection and diagnosis of imperfections and discontinuities in the material