

CURRICULUM VITAE

Personal data

First Name: George

Last Name: Koundourakis

Nationality: Hellenic

Date of birth: 09/11/68

Place of birth: Rethymnon

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Education

October of 2022 till today: Hellenic Open University-Master degree candidate in the Postgraduate Program on Science Communication (EEP).

2014-2022: PHD candidate of the National and Kapodistrian University of Athens in collaboration with Institute of Plasma Physics and Lasers (IPPL). Completed in April of 2022. Thesis title: "*Magnetized jets in Laboratory Astrophysics*".

1990-1992: University of Crete-Master degree candidate and diploma in "*Physics of condensed matter*".

1986-1990: University of Crete-Physics student and diploma in Physics in September of 1990.

Professional activity

1995-2002: Physics lessons for High school pupils and University students.

2002-2005: Owner of Preparation school for High school pupils.

2005-2023: Physics lessons for High school pupils and University students.

Research projects

01.09.2016-30.09.2016: "*Participation in plasma simulations produced from optoelectronic devices producing large density and temperature plasma conditions, concluding for the creation and evolution of MHD instabilities*" (T.E.I. of Crete, Centre for Plasma Physics & Lasers - CPPL).

15.06.2018-31.12.2018: "*Participation in plasma simulations produced by pulsed power plasma devices*" (T.E.I. of Crete, Centre for Plasma Physics & Lasers - CPPL/ELI-LASERLAB Europe, HiPER & IPERION-CH.gr).

Teaching expertise

1990-1991: Teaching mathematics and correcting the exercises for two semesters for first year students in Physics department of the University of Crete.

1995-2023: Preparation lessons in Physics, Chemistry and Mathematics in small groups or individually for High school pupils and University students.

2017 till today: STEAM teacher for primary school children at the Science and Technology part in private education school.

May 2021 till today: Permanent column in the local press, entitled "Science's Explanations" (Επιστήμης Εξηγήσεις), popularizing science (**online: GOODnet.gr/Γνώμες/**). Permanent column in the online magazine BEST, entitled "Display of Science" (Απάνθισμα Επιστήμης) (**online: [ΑΠΑΝΘΙΣΜΑ ΕΠΙΣΤΗΜΗΣ](#)**).

Article writer at the online astrophysical web site 2'science, popularizing astrophysical science (**online: 2'science**).

Summer schools

July 2 to 13 2018: Summer school CPPL trainer of the plasma Pinch-MHD simulations (PowerLaPs "Innovative Education & Training in High Power Laser Plasmas" Erasmus +) (*Certified*).

July 1 to 12 2019: Summer school CPPL trainer of the plasma Pinch-MHD simulations (PowerLaPs "Innovative Education & Training in High Power Laser Plasmas" Erasmus +) (*Certified*).

September 23 to October 4 2019: Summer school IPPL trainee of the COST Action CA17126-TUMIEE held by the Hellenic Mediterranean University (Crete, Greece) (*Certified*).

Languages

Fluency in writing and speaking English (FIRST CERTIFICATE IN ENGLISH UNIVERSITY OF CAMBRIDGE/HIGHER CERTIFICATE IN ENGLISH BY PALSO EXAMINATIONS). Very good use of the scientific language in English.

Computational programming

Very good use of WINDOWS, INTERNET, WORD, POWER POINT, EXCEL, MATLAB, COREL. Simulation programming of plasma devices in C and C++ language.

Publications

Refereed Scientific journals

[1] E. Kaselouris, V. Dimitriou, I. Ftilis, A. Skoulakis, **G. Koundourakis**, E. L. Clark, J. Chatzakis, M. Bakarezos, I. K. Nikolos, N. A. Papadogiannis and M. Tatarakis, "**The influence of the solid to plasma phase transition on the generation of plasma instabilities**", *Nature Communications* **8**, 1713 (2017).

[2] E. Kaselouris, V. Dimitriou, I. Ftilis, A. Skoulakis, **G. Koundourakis**, E. L. Clark, J. Chatzakis, M. Bakarezos, I. K. Nikolos, 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. Control. Fusion* **60** 014031 (2018).

[3]. 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. Ftilis, 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 Michael 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 Science and Engineering*, (2019), Vol. 7, e23, 5 pages.

[4] 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. Ftilis, 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 Michael 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*, (2020), Vol. 8, e5, 7 pages.

[5] G Koundourakis et al, "**A numerical study on laboratory plasma dynamics validated by low current x-pinch experiments**", *Plasma Phys. Control. Fusion* **62** (2020) 125012 (14pp).

[6] E. Kaselouris, I. Ftilis, A. Skoulakis, Y. Orphanos, **G. Koundourakis**, E. L. Clark, J. Chatzakis, M. Bakarezos, N. A. Papadogiannis, V. Dimitriou and M. Tatarakis, "**The importance of the laser pulse-ablator interaction dynamics prior to the ablation plasma phase in inertial confinement fusion studies**", *Phil. Trans. R.Soc. A* **378**: 20200030.

[7] A. Skoulakis-**G. Koundourakis et al**, " High performance simulations of a single X-pinch", *Plasma Phys. Control. Fusion* **64** (2022) 025003 (11pp).

Publications

Conference Proceedings (Refereed)

[1] **G. Koundourakis**, A. Skoulakis, I. Ftilis, V. Dimitriou, E. Bakarezos, N.A. Papadogiannis, E.L. Clark, N. Vlahakis and M. Tatarakis, "**Experimental and numerical investigation of the plasma dynamics and jet formation in low current table-top X-pinch plasma devices**", *proceedings of the SCinTE-VOL 3-pg 19-22* ,*Science in TEchnology 2015 (SCinTE /Athens/5-7 November 2015)*.

Publications

Conference announcements

[1] E. Kaselouris, I. Ftilis, A. Skoulakis, **G. Koundourakis**, V. Dimitriou, E. Bakarezos, E.L. Clark, N.A. Papadogiannis and M. Tatarakis, "**Plasma instabilities: the influence on plasma instabilities during the solid-plasma phase transition**",*27th Symposium on Plasma Physics and Technology(Prague/Czech/ 20-23 June 2016)*.

[2] Alekos Skoulakis, **Giorgos Koundourakis**, Evaggelos Kaselouris, Ioannis Ftilis, Efthimios Bakarezos, E.L. Clark, Nektarios Vlahakis, Nektarios A. Papadogiannis, Vasilis Dimitriou and Michael Tatarakis, "**PRELIMINARY COMPUTATIONAL STUDY OF PLASMA DYNAMIC EVOLUTION PRODUCED BY LOW CURRENT TABLE-TOP PINCH PLASMA DEVICES**", *9th GRACM International Congress on Computational Mechanics/Chania/ 4-6 June 2018*.

Poster presentations

[1] **G. Koundourakis**, A. Skoulakis, E. Kaselouris, I. Ftilis, M. Bakarezos, E.L. Clark, J. Chatzakis, 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**", *Poster 22, ECLIM Rethymnon 2018/ Abstract Book/118 pg*.

Books

[1] Evaggelos Kaselouris, **George Koundourakis** and Vasilis Dimitriou, "**Case studies on FEM and MHD**", pg 414-467, Chapter 18 of "**Tools for investigating electronic excitation: experiment and multi-scale modelling**", Edited by: T. Apostolova, J.

Kohanoff, N. Medvedev, E. Oliva, and A. Rivera, *COST Action TUMIEE (CA17126)*, October 2021, ISBN: 978-84-09-36032-1, DOI: 10.20868/UPM.book.69109.