

# Nikolaos Tsatrafyllis

## Curriculum Vitae

### PERSONAL INFO

DATE OF BIRTH : May 6<sup>th</sup>, 1987  
PLACE OF BIRTH : Athens – Greece  
GENDER : Male  
NATIONALITY : Greek

📍 Bikela, 39  
71201 – Herakleion, Crete (GR)  
☎ +(30) 6977 180482  
✉ tsatran@iesl.forth.gr

### EDUCATION

SEPTEMBER 2018 – PRESENT  
FORTH-IESL, Herakleion – Greece  
*Postdoctoral Researcher*

DECEMBER 2013 – JUNE 2018  
University Of Crete, Herakleion – Greece  
*Ph.D. in Atomic & Molecular Physics*  
Title : *Quantum optical description of high-harmonic generation: Quantum spectrometer in the XUV spectral range.*

Supervisors : Dr. Paraskevas Tzallas  
Prof. Iannis Kominis

SEPTEMBER 2011 – SEPTEMBER 2013  
University Of Crete, Herakleion – Greece  
*M.Sc. in Advanced Physics | Theoretical Physics*

Thesis Title : *Directed motion in Tight-Binding lattices.*

Supervisor : Prof. Giorgos Tsironis

SEPTEMBER 2005 – JUNE 2011  
University Of Crete, Herakleion – Greece  
*B.Sc. in Physics*

SEPTEMBER 2002 – JUNE 2005  
Athens – Greece  
*5<sup>th</sup> High-school of Chalandri*

### LANGUAGES

GREEK ● ● ● ● ● ●  
ENGLISH ● ● ● ● ○ ○  
FRENCH ● ● ● ● ○ ○  
SPANISH ● ● ● ○ ○ ○

### COMPUTER QUALIFICATION

PROG LANG	Python / i-Python Fortran
SOFTWARE PROG	Mathematica, Matlab
DATA ANAL	Origin, ImageJ E-Views, Beam
OFFICE SOFT	Office, $\LaTeX$
OPERATING SYS	Windows, Linux/Unix, Mac-OS

### CONFERENCES

- 25-29/06 – 2017 CLEO/Europe-EQEC :  
Conference on Lasers and Electro-Optics/Europe and the European Quantum Electronics  
**ORAL :** *"The ion microscope as a tool for imaging the ion distribution produced by linear and non-linear processes at the focus of an XUV beam "*  
MUNICH – GERMANY
- 06-10/03 – 2017 DPG Frhjahrstagung (Spring Meeting) of the Atomic, Molecular, Plasma Physics and Quantum Optics Section (SAMOP)  
**ORAL :** *"The ion microscope as a tool for quantitative measurements in the extreme ultraviolet"*  
JOHANNES GUTENBERG UNIVERSITÄT, MAINZ – GERMANY

- 18-21/10 – 2016 MEDEA Summer School :  
"Ultrafast Dynamics with  
Intense Radiation  
Sources"  
[AGIOS NIKOLAOS-CRETE,](#)  
[GREECE](#)
- 15-27/07 – 2013 3<sup>rd</sup> European Ph.D. School  
on Mathematical Modeling  
of Complex Systems  
[UNIVERSITY OF CRETE,](#)  
[HERAKLION – GREECE](#)
- 20-24/05 – 2013 Workshop on Nonlinear  
Schrödinger Equation :  
Theory and Applications  
[ACMAC-UNIVERSITY OF](#)  
[CRETE, HERAKLION – GREECE](#)

- [4] **Time gated ion microscopy of light-atom interactions**  
*Tzallas, P. et al., J. Opt. **20**, 024018 (2018).*
- [5] **High-order harmonics measured by the photon statistics of the infrared driving-field exiting the atomic medium**  
*Tsatrafyllis, N., Kominis, I. K. , Gonoskov, I. A. and Tzallas, P., Nat. Commun. **8**, 15170 (2017).*
- [6] **The ion microscope as a tool for imaging the ion distribution produced by linear and non-linear processes at the focus of an XUV beam.**  
*Tsatrafyllis, N. et al., Optics InfoBase Conference Papers Part F82-CLEO-Europe (2017).*
- [7] **Quantum optical signatures in strong-field laser physics: Infrared photon counting in high-order-harmonic generation**  
*Gonoskov, I. A., Tsatrafyllis, N., Kominis, I. K. and Tzallas, P., Sci. Rep. **6**, 32821 (2016).*
- [8] **The ion microscope as a tool for quantitative measurements in the extreme ultraviolet**  
*Tsatrafyllis, N. et al., Sci. Rep. **6**, 21556 (2016).*

## TEACHING EXPERIENCE

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- 2015 Teaching assistant in Physics Laboratory III - Optics.  
*Fall Semester*
- 2015 Teaching assistant in Physics Laboratory III - Optics.  
*Spring Semester*
- 2011 Teaching assistant in Advanced Physics Laboratory I.  
*Spring Semester*

## INTERESTS

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- RESEARCH Atomic & Molecular Dynamics, Quantum Optics in strong-field physics, Photon counting, Photon statistics, Quantum Information, Nonlinear Phenomena, Attosecond Physics
- PERSONAL Sports, Capoeira, Tricking, Piano, Traveling

## PUBLICATIONS IN INTERNATIONAL REFEREED JOURNALS

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- [1] **Sub-cycle quantum electrodynamics in strongly laser-driven semiconductors.**  
*Tsatrafyllis, N. et al., submitted (2018).*
- [2] **Saddle point approaches in strong field physics and generation of attosecond pulses.**  
*Nayak, A. et al., submitted (2018).*
- [3] **Book chapter in "Progress in Ultrafast Intense laser Science XIV" with title "Towards single-shot XUV-pump-XUV-probe studies".**  
*Orfanos, I., Makos, I., Tsatrafyllis, N., Chatziathanassiou, S., Skantzakis, E., Charalambidis, D. and Tzallas, P., in press (2018).*