

CURRICULUM VITAE

VASSILIS PALTOGLOU

PERSONAL DETAILS

First name: Vassilis
Surname: Paltoglou
Date of birth: October 7th, 1973
Place of birth: Wuppertal Germany
Citizenship: Greek

UNIVERSITY ADDRESS

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EDUCATION

- 2009 **PhD in Physics**, University of Crete, Greece
- 2002 **MSc in Theoretical Physics** with specialization in Con-
densed Matter Physics, University of Crete, Greece
- 1996 **BSc in Physics**, Aristotle University of Thessaloniki, Greece

PROFESSIONAL EXPERIENCE

- 2012-2015 **Research Associate**, University of Crete, Dept. of Math-
ematics and Applied Mathematics, Greece
'OPTICAL WAVE CONTROL: curved, accelerating and dis-
crete light'
- 2010-2011 **Marie Curie Research Fellow**, University of Crete &
IESL-FORTH, Greece
'ELECTROCOMPLEXITY: quantum utility of complex ferro-
electric/magnetic materials'

PUBLICATIONS

- (P1) 'Parity breaking with a nonlinear optical double-slit configuration',
V. Paltoglou and N. K. Efremidis, *J. Opt. Soc. Am. B* **34**, 145 (2017).
- (P2) 'A diagrammatic approach to triplet supercurrents in ferromagnetic Josephson junctions',
I. Margaritis, V. Paltoglou, M. Alexandrakis, and N. Flytzanis, *Eur. Phys. J. B* **88**, 145 (2015).
- (P3) 'Controlled generation of pseudospin-mediated vortices in photonic graphene',
D. Song, S. Liu, V. Paltoglou, Y. Zhu, D. Gallardo, L. Tang, J. Zhao, J. Xu, M. Ablowitz, N. K. Efremidis, and Z. Chen, *2D Mater.* **2**, 034007 (2015).
- (P4) 'Nonparaxial accelerating beams with arbitrary trajectories',
Raluca-Sorina Penciuc, Vassilis Paltoglou and Nikolaos K. Efremidis, *Opt. Lett.* **40**, 1444-1447 (2015).
- (P5) 'Composite multi-vortex diffraction-free beams and van Hove singularities in honeycomb lattices',
V. Paltoglou, Z. Chen and N. K. Efremidis, *Opt. Lett.* **40**, 1037-1040 (2015).
- (P6) 'Unveiling pseudospin and angular momentum in photonic graphene',
D. Song, V. Paltoglou, S. Liu, Y. Zhu, D. Gallardo, L. Tang, J. Xu, M. Ablowitz, N. K. Efremidis, and Z. Chen, *Nature Communications* **40**, art. no. 6272 (2015).
- (P7) 'Accelerating and abruptly autofocusing matter waves',
N. K. Efremidis, V. Paltoglou and W. von Klitzing, *Physical Review A* **87**, 043637 (2013).
- (P8) 'Strain induced interface reconstruction in epitaxial heterostructures',
N. Lazarides, V. Paltoglou, P. Maniatis, G. P. Tsironis, and C. Panagopoulos, *Physical Review B* **84**, 245428 (2011).
- (P9) 'Nonlinear magnetoinductive transmission lines',
N. Lazarides, V. Paltoglou, and G. P. Tsironis, *International Journal of Bifurcation and Chaos* **21**, 2147 (2011).
- (P10) 'Zero phase difference supercurrent in ferromagnetic Josephson junctions',
I. Margaritis, V. Paltoglou, and N. Flytzanis, *J.Phys.: Condensed Matter* **22**, 445701 (2010).
- (P11) 'Resonant effects in ballistic Josephson junctions',
Z. Radovic, V. Paltoglou, N. Lazarides, and N. Flytzanis, *EPJ B* **69**, 229 (2009).
- (P12) 'A diagrammatic approach for a clean multiferromagnetic Josephson junction',
V. Paltoglou, I. Margaritis, and N. Flytzanis, *J. Phys. A* **40**, 12829 (2007).

- (P13) 'Andreev spectrum and supercurrent in a double ferromagnet clean Josephson junction',
V. Paltoglou, I. Margaritis, and N. Flytzanis, *Mod. Phys. Lett. B* **21**,
505-529 (2007).
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CONFERENCES

- (C1) 'Nonparaxial accelerating beams with pre-engineered trajectories',
Raluca-Sorina Penciu, Vassilis Paltoglou, and Nikolaos K. Efremidis,
oral EI-1.5, Conference on Lasers and Electro-Optics/Quantum Electronics
and Laser Conference/Europe-EQEC 2015, Munich, Germany, 21-25
June 2015.
- (C2) 'Composite multi-vortex diffraction-free beams and van Hove singularities
in honeycomb lattices',
Vassilis Paltoglou, Zhigang Chen, and Nikolaos K. Efremidis,
oral EI-1.2, Conference on Lasers and Electro-Optics/Quantum Electronics
and Laser Conference/Europe-EQEC 2015, Munich, Germany, 21-25
June 2015.
- (C3) 'Composite multi-vortex diffraction-free beams and van Hove singularities
in honeycomb lattices',
Vassilis Paltoglou, Zhigang Chen, and Nikolaos K. Efremidis,
poster presentation JTU5A, Conference on Lasers and Electro-Optics/Quantum
Electronics and Laser Conference: Applications and Technology 2015, San
Jose, CA, USA, 10-15 May 2015.
- (C4) 'Asymmetric conical diffraction and generation of non-integer phase sin-
gularities in photonic graphene',
Sheng Liu, Daohong Song, Vassilis Paltoglou, Daniel Gallardo, Liqin Tang,
Jianlin Zhao, Jingjun Xu, Nikolaos K. Efremidis and Zhigang Chen,
paper FTh3D, Conference on Lasers and Electro-Optics/Quantum Elec-
tronics and Laser Conference: QELS Fundamental Science 2015, San Jose,
CA, USA, 10-15 May 2015.
- (C5) 'Direct observation of "pseudospin"-mediated vortex generation in pho-
tonic graphene',
Daohong Song, Liqin Tang, Cibo Lou, Yi Zhu, Mark Ablowitz, Vas-
silis Paltoglou, Nikos Efremidis, Jingjun Xu, and Zhigang Chen,
paper FM2D.2, Conference on Lasers and Electro- Optics/Quantum Elec-
tronics and Laser Conference, San Jose Convention Center, San Jose, CA,
USA, 8-13 June 2014.
- (C6) 'Diagrammatic approach for multilayered ferromagnet hybrid Josephson
junction',
V. Paltoglou, I. Margaritis, N. Flytzanis,
poster presentation, XXIV Panhellenic Conference on Solid State Physics
And Material Science ,Heraklion, Crete, Greece, 21-24 September 2008.

ADDITIONAL INFORMATION

- Computational Skills: Fortran, C, C++, MatLab, Mathematica
- Foreign Languages: English, German
- Educational Experience: Many Body Physics, Statistical Physics, Partial Differential Equations, General Laboratory (Mechanics, Thermodynamics), Mathematical Methods For Physicists II
- Awards:
Graduate and postgraduate studies scholarship award (University of Crete)
Outstanding performance State Scholarships Foundation (IKY) award (Aristotle University of Thessaloniki)
- Music : Professional Level Bouzouki Player

REFERENCES

- Prof N. Flytzanis, Department of Physics, University of Crete, P.O. Box 2208, 71003, Heraklion, Crete, Greece
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- Prof Z. Radovic, Department of Physics, University of Belgrade, P.O. Box 368, 11001, Belgrade, Serbia
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- Prof G. P. Tsironis, Department of Physics, University of Crete, P.O. Box 2208, 71003, Heraklion, Crete, Greece
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