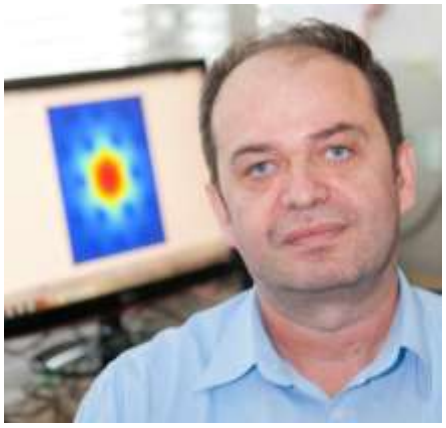
Dr. Georgios Kakarantzas



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EDUCATION

DPhil in Physics, Department of Physics, University of Sussex, UK (1994)
Diploma in Physics, University of Crete, Greece (1989).

RESEARCH & TEACHING APPOINTMENTS

01/2013- Now	Senior Researcher (Grade B), TPCI, NHRF, Athens, Greece.
05/2008 -12/2012:	Associate Researcher (Grade C), TPCI, NHRF, Athens, Greece.
09/2007 -05/2008: University	Assistant Professor (PD 407), Department of Materials Science, of Patras, Greece.
03/2006 -06/2007:	Visiting Senior Researcher, Max-Planck Institute for the Science of Light, Erlangen, Germany (Head: Prof P.St.J.Russell)
09/2003 -02/2006:	Research Fellow (program ENTER) of the General Secretariat of Research and Technology Hellas, PCRL, Department of Electrical and Computer Eng., National Technical University of Athens, Athens, Greece. (Group Head: Prof. H. Arvramopoulos)
08/1998 -08/2003	Research Officer, Optoelectronics Group (Head Prof. P.St.J. Russell), Department of Physics, University of Bath, Bath, UK.
02/1994 -03/1996	Postdoctoral Research Fellow, Department of Materials Technology, Brunel University, London, UK. (Group Head: Prof. A. Jha) (Note: In the period Summer 1996-Winter 1997: completion of compulsory Military Service, Greek Army, Signal Corps.)

MAIN RESEARCH INTERESTS

Micro- Nanophotonic Devices, Photonic Crystal Fibres (PCFs), Tapered fibre Fabrication and Characterization, Fibre Sensors, Plasmonics, Development of Photonic Materials, Fibre Acousto-optics, Planar Waveguides, Waveguide and fiber lasers, Optical Materials.

NOTABLE SCIENTIFIC ACHIEVEMENTS

1992: Demonstration of the first waveguide laser in Tm doped glasses.
1995: Demonstration of the longest fluorescence lifetime in Pr doped chalcogenide glasses.
2000: Demonstration of the first acoustic Bragg reflector in fibres.
2001: Demonstration of the shortest (200μm) at that time fibre coupler
2002: Demonstration of the first Long Period Grating in Photonic Crystal Fibre (PCF).
2003: Demonstration of the first rocking (polarization rotation) filter in Hi-Bi PCF.
2004: Demonstration of ultra-thin layer in tapered fibres using sol-gel.
2010: Demonstration of the first Hybrid PCF with PDMS elastomer.
2019: Demonstration of integration of Chiral Cellulose Nanocrystals in optical fibres for the first time.
2022: Dynamic control of light chirality in black phosphorus

EXTERNAL FUNDING AT TPCI NHRF AS PI

Project SESAMO JIP-ICET call European Defence Agency
Project MEDOUSA Co-Operation call, General Secretariat of Research and Technology Hellas
Project HiPER-GR, European Roadmap of Research Infrastructures, by ESFRI-European Strategic Forum for Research Infrastructures, General Secretariat of Research and Technology Hellas
Co-investigator in two EPSRC projects.

PATENTS

Inventor of 3 International Patents.

CONFERENCES AND INVITED TALKS

Over 51 international conference presentations and 12 invited talks.
Member of the organizing committee of the 1st Mediterranean Conference in Nanophotonic 2008 (MediNano 1). Co-chair of MediNano 2, 2009, Member of the organizing committee of the 3rd Mediterranean Conference in Nanophotonic 2010 (MediNano 3), MediNano 4, MediNano 5 and MediNano 6.

TEACHING ACTIVITIES

Teaching Physics I, II, IV (labs) Materials Science VI (labs) at the Department of Materals Science, University of Patras. First and second year advanced labs teaching assistant at the Physics Dep., University of Sussex.
Co-supervisor of 4 PhD, 2 MSc and 4 diploma students.

HONORS & AWARDS

Royal Society Conference Grant (2000).
DPhil Special Award from the School of Mathematical and Physical Sciences, University of Sussex 1990-1993.
Specialisation Scholarship, Institute of Electronic Structure and Laser, FORTH, Iraklio, Greece from 1987-1989.

RESEARCH MANAGEMENT AND EVALUATION

Member of the Scientific Council of TPCI, NHRF (2016-2022).
Chair of the Scientific Council of TPCI, NHRF (2020-2022).
Regular reviewer for international journals in the fields of optics and materials science.
Regular reviewer for national and international research proposals

PROFESSIONAL AFFILIATIONS & ACTIVITIES

Editorial Board Member Applied Sciences, MDPI (2019-present)
Member of the Optical Society of America.

PUBLICATIONS

60 publications in peer-reviewed journals and referred conference proceedings. More than 1767 citations and H-Index 22 (Google Scholar).

SELECTED RECENT PUBLICATIONS

1. N. Matthaiakakis, S. Droulias, G. Kakarantzas, "Dynamic Control of Light Chirality with Nanostructured Monolayer Black Phosphorus for Broadband Terahertz Applications" *Advanced Optical Materials* **2022**, *10*, 2102273.
   DOI: 10.1002/adom.202102273
2. G. Antonopoulos, E. Bakoglou, G. Kakarantzas, "Fine, Reversible and Broadband Tuning of the Group Velocity Dispersion of Tapered Silica Fibers in a Thermo-Optic Polymer Matrix" *Journal of Lightwave Technology* **2020**, *38,* 4086.
   DOI: 10.1109/JLT.2020.2984595
3. G. Antonopoulos, G. Kakarantzas, "Integration of Chiral Cellulose Nanocrystal Films in Silica Optical Fibers. *Materials Research Express* **2019**, *6*, 1150d9.
   DOI: 10.1088/2053-1591/ab5004
4. A. Petropoulou, G. Antonopoulos, P. Bastock, G. Kakarantzas, C. Craig, D. W. Hewak, M. N. Zervas, C. Riziotis, "All-Fiber Plasmonic Platform Based on Hybrid Composite Metal/Glass Microwires". *The Journal of Physical Chemistry C* **2018**, *122*, 26169.
   DOI: 10.1021/acs.jpcc.8b08844

5. G. Antonopoulos, P. Velanas, A. Psomaki-Karra, C. Riziotis, G. Kakarantzas, "Hybrid silica nanowires with a highly nonlinear glass thin coating" *IEEE Proceedings of Spatiotemporal Complexity in Nonlinear Optics (SCNO)* **2015**, *1*, DOI: 10.1109/SCNO.2015.7324005
6. C. Markos, G. Antonopoulos and G. Kakarantzas, "Broadband guidance in a Hollow-Core Photonic Crystal Fiber with Polymer-Filled Cladding" *IEEE Photonics Technology Letters* **2013**, *25*, 2003.
DOI: 10.1109/LPT.2013.2280817