Prof. Stelios Tzortzakis
stzortz@iesl.forth.gr
http://unis.iesl.forth.gr
http://www.filamentation.org
Tel. +30.2810 391396
Google Scholar ResearchGate

Education

Ph.D. Nonlinear Optics and Lasers (2001), Ecole Polytechnique, France.
B.Sc. in Physics (1997), Dept. of Physics, University of Crete, Greece.

Academic Positions

- Associate Professor, Materials Dept., University of Crete (2011-)
- Principal Researcher, Head UNIS group,
  Deputy Director IESL-FORTH, Greece (2009-)
- Researcher, Head UNIS group, IESL–FORTH, Greece (2006-2009)
- Chargé de Recherche CNRS, Ecole Polytechnique, France (2003-)
- Research associate, NTUA, Greece (2003-2004)
- Research associate, Ecole Polytechnique, France (2001-2003)
- Maître des conférences, ENSTA, France (2001-2003)

Academic Honors

- Rozhdestvensky Medal of the Russian Optical Society (2013)
- Marie Curie Excellence Grant (~2M€ ; 2006-2010)
- Fellowship from the Ecole Polytechnique (France) (2002-2003)
- Fellowship from the CEA (France) (2001-2002)
- Ph.D. obtained with distinctions.
- Fellowship from the French ministry of education (1998-2001)
- Fellowship from the Ecole Polytechnique (France) (1997-1998)

Skills

***Languages**:* Greek, English, French.

Scientific community

Member of the: Optical Society of America (OSA) and International Society for Optics and Photonics (SPIE)

Active referee at the following journals: Nature Photonics, Physical Review Letters, Physical Review (A,B,E), Optics Letters, Optics Express, JOSA B, Optics Commun., Applied Physics A, Applied Physics B, Journal of Applied Physics, The European Physical Journal D

Research Projects

Long experience (>15 years) from participation in European Union funded projects (in Greece and in France for applications mainly in nonlinear optics and intense fs lasers). National (in France with the CEA for studying the nonlinear propagation of intense fs laser pulses) and bi-national projects (like the French-German "Teramobile" project). Marie Curie Excellence Grant award holder and team leader

of a research group on secondary femtosecond sources at the IESL-FORTH (~2M€; 2006-2010). "Aristeia" project (~0.5M€; 2012-2015).

Research Experience

Broad experience in the following domains:
- Nonlinear interactions of intense femtosecond laser pulses with matter.
- Nonlinear laser propagation phenomena - filamentation.
- Photonic structuring in the bulk of transparent solid materials.
- Quantum and complexity physics with photonic lattices.
- Intense tunable THz sources and THz nonlinear Optics.
- Tunable THz metamaterials.
- Environmental/atmospheric physics.
- Hot/warm and dense plasma physics.

Scientific output and impact

- More than **80 articles** in peer-reviewed journals
- More than **2500 citations; h-index = 25; g-index = 56**
- More than **140** International Scientific Conferences with more than **55 invited and plenary talks**

Selected Publications

- **P. Panagiotopoulos, D. G. Papazoglou, A. Couairon, and S. Tzortzakis**
  "Sharply autofocused ring-Airy beams transforming into nonlinear intense light bullets"
  Nature Communications **4**, 2622 (2013)
- **M. Bellec, P. Panagiotopoulos, D. G. Papazoglou, NK. Efremidis, A. Couairon, S. Tzortzakis**
  "Observation and optical tailoring of photonic lattice filaments"
  Phys. Rev. Lett. **109**, 113905 (2012) *[Highlighted in Physics]*
- **N.-H. Shen, M. Massaouti, M. Gokkavas, J.-M. Manceau, E. Ozbay, M. Kafesaki, T. Koschny, S. Tzortzakis, C. M. Soukoulis**
  "Optically implemented broadband blue-shift switch in the terahertz regime"
  Phys. Rev. Lett. **106**, 037403 (2011)
- **D. G. Papazoglou, E. K. Efremidis, D. N. Christodoulides, and S. Tzortzakis**
  "Observation of abruptly autofocusing waves"
  Opt. Lett. **36**, 1842-1844 (2011)
- **D. Abdollahpour, S. Suntsov, D. G. Papazoglou and S. Tzortzakis**
  "Spatio-temporal Airy light bullets in the linear and nonlinear regimes"
  Phys. Rev. Lett. **105**, 253901 (2010)
- **J.-M. Manceau, N.-H. Shen, M. Kafesaki, C. M. Soukoulis, S. Tzortzakis**
  "Dynamic response of metamaterials in the terahertz regime: Blueshift tunability and broadband phase modulation"
  Appl. Phys. Lett. **96**, 021111 (2010)