

## I. Personal Information

- Date of birth: August 20, 1979
- Place of birth: Ioannina, Greece
- Family status: Married, 1 child



## II. Education

- 10/2001 – 01/2006**      **PhD Physics, University of Ioannina, Department of Physics**  
Note: „Excellent“  
Title: „Self-assembly and dynamics of polypeptides“  
Supervisor: Prof. G. Floudas
- 09/1997 – 07/2001**      **Physics Diploma (4 years), University of Ioannina, Department of Physics**  
Note: „Excellent“ 9,11/10
- 1994 – 1997**      **High School, Ioannina, Greece**  
Note: „Excellent“ 19,5/20

## III. Career

- since 3/2015**      **University of Ioannina, Greece**  
**Department of Physics**  
Assistant Professor, Polymer Physics
- 17/11/2014**      **Habilitation at the University of Leipzig, Germany, Faculty for Physics and Geosciences**  
„Exploiting the capabilities of infrared spectroscopy in soft matter: Molecular conformation, biaxial anisotropy, and microscopic mechanical fields“
- 12/2010 – 2/2015**      **Max Planck Institut for Polymer Research, Mainz, Germany**  
Scientific coworker (Postdoc)  
Superhydrophobic surfaces, Colloids in external fields
- 12/2006 – 11/2010**      **University of Leipzig, Germany, Faculty for Physics and Geosciences**  
Scientific coworker (Postdoc)  
Spider silk and artificial fibers, liquid crystal elastomers, glasses
- 02/2006 – 11/2006**      Obligatory military service, Soufli, Greece

#### IV. Prizes

- 08/2008** Peter Debye Prize for Young Investigators for Excellence in a Dielectric Research.
- 07/2000** 1st prize in the “Advanced Physics Summer School”, Heraklion, Crete

#### V. Teaching experience

##### A. Lectures

- Electromagnetism (University of Ioannina, Department of Physics, 2015)
- Mechanics lab course (University of Ioannina, Department of Physics, 2015)
- Experimentalphysik (in german, Universität Leipzig, Fakultät für Physik und Geowissenschaften, academic year 2009-2010) with Prof. F. Kremer.
- Molecular Physics (in english, Universität Leipzig, Fakultät für Physik und Geowissenschaften, academic year 2009-2010).
- Molekülphysik (in german, Universität Leipzig, Fakultät für Physik und Geowissenschaften, academic years 2007-2008, 2008-2009) with Prof. F. Kremer.
- Mechanics (in english, Universität Leipzig, Fakultät für Physik und Geowissenschaften, 2007-2008) with Prof. A. Pöpl.
- Students' laboratory course on Thermodynamics (in german, Universität Leipzig, Fakultät für Physik und Geowissenschaften, academic years 2006-2007, 2008-2009)
- Thermodynamics (University of Ioannina, Dept. of Physics, acad. years 2003-2004, 2004-2005) with Prof. Th. Bakas.
- Introductory course in Computer Science (University of Ioannina, Dept. of Physics, acad. year 2002-2003) with Prof. Th. Bakas.

##### B. Supervision of students

- Assisting supervision of Diploma and Bachelor theses (supervisor: F. Kremer, Universität Leipzig) of the undergraduate students: Jan Sölter, Immanuel Weidner, Georg Kropat, Wilhelm Kossack, Benjamin Suttner and Manos Veroutis.
- Assisting supervision of PhD thesis (supervisor: F. Kremer, Universität Leipzig) of Roxana Ene, Wilhelm Kossack and Ilya Semenov.

#### VI. Publications in peer-reviewed journals

**Citations (Web of Knowledge): 941**

**h-index: 19**

**Researcher-ID: G-3226-2011**

- [1] G. Floudas, P. Papadopoulos, H.A. Klok, G.W.M. Vandermeulen, J. Rodriguez-Hernandez, Hierarchical self-assembly of poly( $\gamma$ -benzyl-L-glutamate)-poly(ethylene glycol)-poly( $\gamma$ -benzyl-L-glutamate) rod-coil-rod triblock copolymers, *Macromolecules*. 36 (2003) 3673–3683.

- [2] P. Papadopoulos, G. Floudas, C. Chi, G. Wegner, Molecular dynamics of oligofluorenes: A dielectric spectroscopy investigation, *J. Chem. Phys.* 120 (2004) 2368–2374.
- [3] P. Papadopoulos, G. Floudas, H.A. Klok, I. Schnell, T. Pakula, Self-assembly and dynamics of poly( $\gamma$ -benzyl-L-glutamate) peptides, *Biomacromolecules*. 5 (2004) 81–91.
- [4] P. Papadopoulos, D. Peristeraki, G. Floudas, G. Koutalas, N. Hadjichristidis, Origin of glass transition of poly(2-vinylpyridine). A temperature- and pressure-dependent dielectric spectroscopy study, *Macromolecules*. 37 (2004) 8116–8122.
- [5] P. Papadopoulos, G. Floudas, I. Schnell, T. Aliferis, H. Iatrou, N. Hadjichristidis, Nanodomain-induced chain folding in poly( $\gamma$ -benzyl-L-glutamate)-b-polyglycine diblock copolymers, *Biomacromolecules*. 6 (2005) 2352–2361.
- [6] P. Papadopoulos, G. Floudas, I. Schnell, H.A. Klok, T. Aliferis, H. Iatrou, et al., “Glass transition” in peptides: Temperature and pressure effects, *J. Chem. Phys.* 122 (2005) 224906.
- [7] G. Floudas, K. Mpoukouvalas, P. Papadopoulos, The role of temperature and density on the glass-transition dynamics of glass formers, *J. Chem. Phys.* 124 (2006).
- [8] M. Mondeshki, G. Mihov, R. Graf, H.W. Spiess, K. Muellen, P. Papadopoulos, et al., Self-assembly and molecular dynamics of peptide-functionalized polyphenylene dendrimers, *Macromolecules*. 39 (2006) 9605–9613.
- [9] P. Papadopoulos, G. Floudas, I. Schnell, I. Lieberwirth, T.Q. Nguyen, H.A. Klok, Thermodynamic confinement and  $\alpha$ -helix persistence length in poly( $\gamma$ -benzyl-L-glutamate)-b-poly(dimethyl siloxane)-b-poly( $\gamma$ -benzyl-L-glutamate) triblock copolymers, *Biomacromolecules*. 7 (2006) 618–626.
- [10] P. Papadopoulos, J. Sölter, F. Kremer, Structure-property relationships in major ampullate spider silk as deduced from polarized FTIR spectroscopy, *Eur. Phys. J. E Soft Matter*. 24 (2007) 193–199.
- [11] R. Ene, P. Papadopoulos, F. Kremer, Combined structural model of spider dragline silk, *Soft Matter*. 5 (2009) 4568–4574.
- [12] P. Papadopoulos, R. Ene, I. Weidner, F. Kremer, Similarities in the Structural Organization of Major and Minor Ampullate Spider Silk, *Macromol. Rapid Commun*. 30 (2009) 851–857.
- [13] P. Papadopoulos, J. Sölter, F. Kremer, Hierarchies in the structural organization of spider silk - a quantitative model, *Colloid Polym. Sci.* 287 (2009) 231–236.
- [14] I. Semenov, O. Otto, G. Stober, P. Papadopoulos, U.F. Keyser, F. Kremer, Single colloid electrophoresis, *J. Colloid Interface Sci.* 337 (2009) 260–264.
- [15] R. Ene, P. Papadopoulos, F. Kremer, Partial deuteration probing structural changes in supercontracted spider silk, *Polymer*. 51 (2010) 4784–4789.
- [16] C. Iacob, J.R. Sangoro, P. Papadopoulos, T. Schubert, S. Naumov, R. Valiullin, et al., Charge transport and diffusion of ionic liquids in nanoporous silica membranes, *Phys. Chem. Chem. Phys.* 12 (2010) 13798–13803.
- [17] W. Kossack, P. Papadopoulos, P. Heinze, H. Finkelmann, F. Kremer, Transition Moment Orientation Analysis on a Smectic C Liquid Crystalline Elastomer film, *Macromolecules*. 43 (2010) 7532–7539.
- [18] P. Papadopoulos, P. Heinze, H. Finkelmann, F. Kremer, Electromechanical Properties of Smectic C\* Liquid Crystal Elastomers under Shear, *Macromolecules*. 43 (2010) 6666–6670.
- [19] I. Semenov, P. Papadopoulos, G. Stober, F. Kremer, Ionic concentration- and pH-dependent electrophoretic mobility as studied by single colloid electrophoresis, *J. Phys. Condens. Matter*. 22 (2010) 494109.

- [20] R. Ene, P. Papadopoulos, F. Kremer, Quantitative analysis of infrared absorption coefficient of spider silk fibers, *Vib. Spectrosc.* 57 (2011) 207–212.
- [21] R. Ene, P. Papadopoulos, F. Kremer, Supercontraction In Nephila Spider Dragline Silk - Relaxation Into Equilibrium State, *Polymer.* 52 (2011) 6056–6060.
- [22] A. Hagenau, P. Papadopoulos, F. Kremer, T. Scheibel, Mussel collagen molecules with silk-like domains as load-bearing elements in distal byssal threads, *J. Struct. Biol.* 175 (2011) 339–347.
- [23] W. Kossack, P. Papadopoulos, M. Parkinson, F. Prades, F. Kremer, IR Transition Moment Orientational Analysis on semi-crystalline polyethylene films, *Polymer.* 52 (2011) 6061–6065.
- [24] P. Papadopoulos, C. Grigoriadis, N. Haase, H.-J. Butt, K. Müllen, G. Floudas, Dynamics of Structure Formation in a Discotic Liquid Crystal Studied by Infrared Spectroscopy, *J. Phys. Chem. B.* 115 (2011) 14919–14927.
- [25] R. Ene, C. Krywka, S.-G. Kang, P. Papadopoulos, M. Burghammer, E. Di Cola, et al., Structure changes in Nephila dragline: The influence of pressure, *Polymer.* 53 (2012) 5507–5512.
- [26] M. Jasiurkowska, W. Kossack, R. Ene, C. Iacob, W.K. Kipnusu, P. Papadopoulos, et al., Molecular dynamics and morphology of confined 4-heptyl-4'-isothiocyanatobiphenyl liquid crystals, *Soft Matter.* 8 (2012) 5194–5200.
- [27] L. Mammen, X. Deng, M. Untch, D. Vijayshankar, P. Papadopoulos, R. Berger, et al., Effect of Nanoroughness on Highly Hydrophobic and Superhydrophobic Coatings, *Langmuir.* 28 (2012) 15005–15014.
- [28] P. Papadopoulos, X. Deng, L. Mammen, D.-M. Drotlef, G. Battagliarin, C. Li, et al., Wetting on the microscale: Shape of a liquid drop on a microstructured surface at different length scales, *Langmuir.* 28 (2012) 8392–8398.
- [29] P. Papadopoulos, X. Deng, D. Vollmer, H.-J. Butt, Electrokinetics on superhydrophobic surfaces, *J. Phys. Condens. Matter.* 24 (2012) 464110.
- [30] P. Papadopoulos, L. Mammen, X. Deng, D. Vollmer, H.-J. Butt, Pinning-induced Variations of the Contact Angle of Drops on Microstructured Surfaces, *Chem. Lett.* 41 (2012) 1343–1345.
- [31] D.W. Pilat, P. Papadopoulos, D. Schäffel, D. Vollmer, R. Berger, H.-J. Butt, Dynamic Measurement of the Force Required to Move a Liquid Drop on a Solid Surface, *Langmuir.* 28 (2012) 16812–16820.
- [32] A.M. Anton, W. Kossack, C. Gutsche, R. Figuli (Ene), P. Papadopoulos, J. Ebad-Allah, et al., Pressure-Dependent FTIR-Spectroscopy on the Counterbalance between External and Internal Constraints in Spider Silk of Nephila pilipes, *Macromolecules.* 46 (2013) 4919–4923.
- [33] H.-J. Butt, C. Semprebon, P. Papadopoulos, D. Vollmer, M. Brinkmann, M. Ciccotti, Design principles for superamphiphobic surfaces, *Soft Matter.* 9 (2013) 418–428.
- [34] X. Deng, M. Paven, P. Papadopoulos, M. Ye, S. Wu, T. Schuster, et al., Solvent-Free Synthesis of Microparticles on Superamphiphobic Surfaces, *Angew. Chem. Int. Ed.* 52 (2013) 11286–11289.
- [35] X. Deng, F. Schellenberger, P. Papadopoulos, D. Vollmer, H.-J. Butt, Liquid Drops Impacting Superamphiphobic Coatings, *Langmuir.* 29 (2013) 7847–7856.
- [36] L. Mammen, P. Papadopoulos, K. Friedemann, S. Wanka, D. Crespy, D. Vollmer, et al., Transparent and airtight silica nano- and microchannels with uniform tubular cross-section, *Soft Matter.* 9 (2013) 9824–9832.
- [37] P. Papadopoulos, W. Kossack, F. Kremer, Intra- and inter-molecular dynamics in glass-forming liquids, *Soft Matter.* 9 (2013) 1600–1603.
- [38] P. Papadopoulos, L. Mammen, X. Deng, D. Vollmer, H.-J. Butt, How superhydrophobicity breaks down, *Proc. Natl. Acad. Sci.* 110 (2013) 3254–3258.

- [39] M. Paven, P. Papadopoulos, S. Schöttler, X. Deng, V. Mailänder, D. Vollmer, et al., Super liquid-repellent gas membranes for carbon dioxide capture and heart–lung machines, *Nat. Commun.* 4 (2013) 2512.
- [40] J. Zhao, P. Papadopoulos, M. Roth, C. Dobbrow, E. Roeben, A. Schmidt, et al., Colloids in external electric and magnetic fields: Colloidal crystals, pinning, chain formation, and electrokinetics, *Eur. Phys. J. Spec. Top.* 222 (2013) 2881–2893.
- [41] M. Paven, P. Papadopoulos, L. Mammen, X. Deng, H. Sachdev, D. Vollmer, et al., Optimization of superamphiphobic layers based on candle soot, *Pure Appl. Chem.* 86 (2014) 87–96.
- [42] D. Vijayshankar, L. Mammen, P. Papadopoulos, D. Vollmer, Nanorough silica coatings by chemical vapor deposition, *RSC Adv.* 4 (2014) 12737.
- [43] Butt, H.-J.; Vollmer, D.; Papadopoulos, P. Super liquid-repellent layers: The smaller the better. *Advances in Colloid and Interface Science* 2014.
- [44] Drotlef, D.-M.; Blümmler, P.; Papadopoulos, P.; del Campo, A. Magnetically Actuated Micropatterns for Switchable Wettability. *ACS Appl. Mater. Interfaces* 2014.
- [45] M. Ye, X. Deng, J. Ally, P. Papadopoulos, F. Schellenberger, D. Vollmer, et al., Superamphiphobic Particles: How Small Can We Go?, *Phys. Rev. Lett.* 112 (2014) 016101.
- [46] Mammen, L.; Bley, K.; Papadopoulos, P.; Schellenberger, F.; Encinas, N.; Butt, H.-J.; Weiss, C. K.; Vollmer, D. Functional superhydrophobic surfaces made of Janus micropillars. *Soft Matter* 2015, 11, 506–515.
- [47] S. Wooh, H. Huesmann, M. N. Tahir, M. Paven, K. Wichmann, D. Vollmer, W. Tremel, P. Papadopoulos,\* H.-J. Butt,\* Synthesis of Mesoporous Supraparticles on Superamphiphobic Surfaces, *Adv. Mater* 2015, DOI: 10.1002/adma.201503929.
- [48] Schellenberger F, Xie J, Encinas N, Hardy A, Klapper M, Papadopoulos P, Butt HJ, Vollmer D. Direct observation of drops on slippery lubricant-infused surfaces. *Soft Matter.* 2015 Sep 23;11(38):7617-26

## VII. INVITED TALKS

- [1] “Hierarchies in the structural organization of spider silk: A quantitative model” June 20, 2008, Göttingen, Germany.
- [2] “Hierarchical nanostructure of two types of spider silk”, February 16, 2009, FORTH, Heraklion, Crete.
- [3] “Combined structural model of spider dragline silk”, November 25, 2009, Bayreuth, Germany.
- [4] “Novel Applications of Infrared Spectroscopy in Soft Matter: Biopolymers, Elastomers and Ionic Liquids”, July 6, 2010, TU München, Germany.
- [5] “Intra- and inter-molecular dynamics in glass-forming liquids”, March 11, 2013, at the DPG conference in Regensburg, Germany

## VIII. FOREIGN LANGUAGES

- English (Certificate of Proficiency in English, Cambridge University)
- German (C2 Level)

Ioannina, 12.11.2015