## **DIMITRIS VLASSOPOULOS** (dvlasso@iesl.forth.gr)

updated 10/05/2019

## **Biographical Information**

Born in Athens, Greece, 22/10/1960. Married, two sons. Greek citizenship.

#### Education

Diploma, Chemical Engineering, National Technical University, Athens, Greece, 1983.

M.A, Chemical Engineering, Princeton University, Princeton, N.J., USA, 1986.

Ph.D., Chemical Engineering, Princeton University, Princeton, N.J., USA, 1990.

## **Appointments and Honors**

- 1. President, Hellenic Society of Rheology (HSR), 1998-2000
- 2. Co-opted Member of the Executive Council of the European Society of Rheology (2002-2005).
- 3. Member at Large, Executive Committee of *The Society of Rheology* (October 2013-October 2015).
- 1. Member of the Editorial Board, *Rheologica Acta*, 2000-2006, 2011-present.
- 2. Member of the International Editorial Advisory Board, Soft Matter, 2005-2014.
- 3. Member of the Editorial Board, Journal of Rheology, 2006-.
- 4. European Editor, *Rheologica Acta*, 2006-2011.
- 5. Member of the working party 'Non-Newtonian Fluid Mechanics and Rheology' of the International Union for Theoretical and Applied Mechanics (IUTAM), 2008-.
- 6. Member of the combined Editorial Advisory Board, Macromolecules and ACS Macro Letters, 2014-2017.
- 7. Associate Editor, Soft Matter (2015-).
- 8. Member of the Editorial Advisory Board, Physics of Fluids, 2016-.
- 1. FORTH Prize for Basic Research, 2009.
- 2. Society of Rheology Publication Award, 2011 (paper: E. van Ruymbeke, E. B. Muliawan, S. G. Hatzikiriakos, T. Watanabe, A. Hirao, and D. Vlassopoulos, "Viscoelasticity and Extensional Rheology of Model Cayley-tree Polymers of Different Generations", *J. Rheol.* **54**, 643-662, 2010).
- 3. Weissenberg Award, European Society of Rheology, 2015.
- 4. Fellow, The Society of Rheology, 2018.
- 1. Visiting Scholar, *Kavli Institute for Theoretical Physics (KITP), University of California*, Santa Barbara, CA, USA, April 2002.
- 2. International Visiting Scholar, *University of Delaware*, Newark, Delaware, USA, September-October 2002.
- 3. Visiting Professor, *University of Delaware*, *Department of Chemical Engineering*, Newark, Delaware, USA, August-December 2005.
- 4. Michelin Visiting Professor, *Ecole Superieure de Physique et Chimie Industrielles (ESPCI ParisTech)*, *Laboratoire Matière Molle et Chimie*, Paris, France, August-December, 2009.
- 5. Visiting Professor, *ETH Zürich*, *Department of Materials* (Polymer chemistry / Polymer physics), September 2013 January 2014.
- 6. Honorary Member, Polymer Chemistry Group, *ETH Zürich, Department of Materials*, Zurich, Switzerland, December 2013.
- 7. Visiting Professor, *Department of Chemical and Biochemical Engineering*, Technical University of Denmark (DTU), Lyngby, Denmark, March-May, 2016; June 2017; June 2018; June 2019.
- 8. Visiting Professor, *Institut National des Sciences Appliquées (INSA), MATEIS*, Lyon, France, September 2017.
- 9. Visiting Professor, *Bio and Soft Matter, Institute of Condensed Matter and Nanosciences*, Université catholique de Louvain, Belgium, July & September 2018.
- 10. Visiting Professor, *Indian Institute of Technology*, Kanpur, India, December 2018.
- 11. Paris Science Chair, Visiting Professor, Ecole Superieure de Physique et Chimie Industrielles (ESPCIParisTech), Laboratoire Matière Molle et Chimie, Paris, September 2019.
- 1. President, Hellenic Society of Rheology (HSR), 1998-2000
- 2. Co-opted Member of the Executive Council of the European Society of Rheology (2002-2005).
- 3. Member at Large, Executive Committee of The Society of Rheology (October 2013-October 2015)

## **Work Experience**

- 1. Foundation for Research & Technology Hellas (FO.R.T.H.), Heraklion, Crete, Greece. Institute of Electronic Structure & Laser (I.E.S.L.), Affiliated Faculty (2002-); Associate Scientist (1998-2002); Assistant Scientist (1995-1998); Contract Researcher (1992-1995).
- 2. University of Crete, Heraklion, Crete, Greece.

Department of Materials Science & Technology, Professor (2007-); Associate Professor (2002-2007). Department of Physics, Adjunct Associate Professor (Visiting Professorship 407), 1998-2002.

3. *Mobil Research & Development Corporation*, Paulsboro, N.J., USA (1990-1991). Senior Staff Engineer, Paulsboro Research Laboratory, Process Research and Technical Service Division.

4. Princeton University, Princeton, N. J., USA (1986-1989).

Department of Chemical Engineering, Assistant in Instruction and Research Assistant (part of Ph.D work)

5. Metelco S.A., Metamorphosis Attikis, Greece.

Technical Consultant, printed circuit boards (1992); Production Engineer (1983-1984, summer 1981).

6. *Military Service (mandatory): Greek Navy*, Salamis Naval Base, Greece (1991-1992). Scientific Officer, Center for Fuel Distribution, Office of Technical Planning, Amphiali.

#### **Patents**

1. E. Iatrou, K. Dimas, D. Vlassopoulos, P. Bilalis, and C. Tsiblouli,

"Linear five-component poly-peptiic and hybrid polymers as injectable hydrogels, which can be formed insitu and can self-heal and respond to pH and temperature, for local and directed administration of gemcitabine",

Greek patent 1009114, A61K, 57/34, C08G 69/36, 2017.

## **Seminars**

1. "Visualization of Gas-Liquid Flows in Bubble Caps", Hydroprocessing Seminar, Mobil Research & Development Corp., Paulsboro, New Jersey, August 1990.

2. "Evaluation of Bubble Cap Distributor Trays",

Engineering Group Seminar, Mobil Technical Center, Princeton, New Jersey, September 1990.

3. "Evaluation of Distributor Trays by Means of Cold Flow Studies",

Hydroprocessing Seminar, Mobil Research & Development, Paulsboro Research Laboratory, Paulsboro, New Jersey, February 1991.

4. "Rheological Characterization of Dilute Polymer Solutions",

FO.R.T.H., Institute of Electronic Structure & Laser, Heraklion, Crete, February 1992.

5. "Rheological Characterization of Dilute Polymer Solutions",

Joint Colloquium, Department of Chemical Engineering-University of Patras and Institute of Chemical Engineering and High Temperature Processes, Patras, Greece, May 1993.

 "Aggregation Behavior in Semi-dilute Solutions of Rod-Like Polymers Solutions", Institute of Physical Chemistry, University of Mainz, Germany, November 1995.

7. "Chain Conformation and Aggregation of Rod-Like Polymers in Solution",

Polymer Science Colloquium, Polymer Institut, University of Karlsruhe, Germany, November 1995.

8. "Aggregation Dynamics in Semi-dilute Solutions of Hairy-Rod Polymers",
Institute of Materials Science and Department of Chemical Engineering Joint Colloquium, University of Connecticut, Storrs, CT, December 1995.

9. "Critical Behavior in Polymer Blends",

Department of Materials Science and Engineering, The Pennsylvania State University, College Park, PA, December 1995.

10. "The Unusual Behavior of Polymer Blends Near their Phase Separation",

Chemical Engineering Colloquium, Department of Chemical Engineering, University of British Columbia, Vancouver, Canada, December 1995.

11. "Dynamics and Rheology of Critical Polymer Blends",

Department of Chemical Engineering, City University of New York (CUNY) at Buffalo, Buffalo, N.Y., August 1996.

12. "Dynamics and Rheology of Binary Polymer Mixtures",

Polymer Physics Colloquium, Department of Chemical Engineering, University of Delaware, Newark, DE, August 1996.

13. "Dynamic Aspects of Critical Polymer Blends", Chemical Engineering Colloquium, Department of Chemical Engineering, University of Nottingham,

- Nottingham, U.K., November 1996.
- "Dynamics of Polymer Mixtures Near the Phase Separation",
   Special Colloquium, Department of Materials, Queen Mary & Westfield College, University of London,
   London, U.K, November 1996.
- "Structure and Dynamics of Multiarm Star Polymers",
   Department of Chemical Engineering and Engineering Research Center (ERC) of Particle Science and Technology, University of Florida, Gainesville, FL, February 1997.
- "Structure-Properties Relationships in Complex Fluids with Emphasis on Rod-Like Polymers",
   Monsanto Technical Community (TCM) Seminar Series, The Monsanto Chemical Company, Pensacola,
   FL, February 1997.
- "Dynamics of Heterogeneous Polymeric Systems",
   Physics Colloquium, Physics Department, University of Crete, Heraklion, Crete, Greece, April 1997.
- "Dynamics of Multiarm Star Polymers in the Ordering Region",
   National Institute of Standards and Technology (N.I.S.T), Gaithersburg, MD, June 1997.
- 19. "Structure and Dynamics of Multiarm Star Polymers: from Polymeric to Colloidal Behavior", Chemical Engineering Colloquium, Department of Chemical Engineering, University of Cincinnati, Cincinnati, OH, October 1997.
- "Research Activities of the Polymer Group, FORTH-IESL",
   Centre for Self Organizing Molecular Systems (SOMS), School of Chemistry, The University of Leeds,
   Leeds, U.K, November 1997.
- "Structure and Dynamics of Complex Polymeric Systems: Branched Polymers, Blends, and Rod-Like Polymers",
   Avery-Dennison Research Center Seminar Series, Pasadena, CA, March 1998.
- 22. "Controlling the Dynamics of Soft Spheres: from Polymeric to Colloidal Behavior", Chemical Engineering Colloquium, Department of Chemical Engineering, University of British Columbia, Vancouver, Canada, March 1998.
- "Research Activities of the Polymer Group, FORTH-IESL. Controlling the Dynamics of Soft Spheres: from Polymeric to Colloidal Behavior",
   Symvx Technologies, Santa Clara, CA, March 1998.
- 24. "Controlling the Dynamics of Soft Spheres: from Polymeric to Colloidal Behavior",
  Department of Chemical Engineering, Rheo-optics Group, Stanford University, Stanford, CA, March 1998.
- 25. "Structure and Rheology of Complex Soft Materials: Hairy-Rod and Star Polymers", Polymer Physics Colloquium, Department of Chemical Engineering, University of Delaware, Newark, DE, October 1998.
- "Structure and Viscoelasticity of Soft Steric Spheres",
   Merck & Co. Research Laboratories, West Point, PA, October 1998.
- 27. "Dynamic Response of Multiarm Star Polymers: from Polymers to Colloids", Department of Chemical Engineering, University of California, Santa Barbara, CA, October 1998.
- "Structure and Rheology of Model Soft Spheres",
   FMC, Pharmaceutical Division, Princeton, N.J., October 1998.
- 29. "Dynamics of Soft Spheres",
  - The Benjamin Levich Institute for Physicochemical Hydrodynamics, The City College of the City University of New York, New York, N.Y., October 1998.
- 30. "Structure and Rheology of Complex Soft Materials: Polymer Blends and Star Polymers", Chemical Engineering Colloquium, Department of Chemical Engineering, Katholieke Universiteit Leuven, Leuven (Heverlee), Belgium, November 1998.
- 31. "Using Hyperbranched Polymers to Explore the Dynamics in the Mesoscopic Regime",
  Department of Polymer Science and Engineering, University of Massachusetts, Amherst, MA, August
  1999.
- 32. "Structure and Dynamics of Mesoscopic Polymer Systems", Department of Chemical Engineering, Princeton University, Princeton, N. J., August 1999.
- 33. "Structure and Dynamics in the Mesoscopic Regime: Results from Hyperbranched Polymers and Micelles",
  - Department of Chemical Engineering, University of Florida, Gainesville, FL, August 1999.
- 34. "Exploring the Dynamics of Mesoscopic Soft Systems: Polymeric Stars and Micelles", Department of Chemistry, University of Sheffield, Sheffield, U.K., December 1999.
- 35. "Hyperbranched Polymers as Vehicles for Exploring the Dynamics in the Mesoscopic Regime", Department of Physics and Astronomy and IRC in Polymer Science and Technology, University of Leeds, Leeds, U.K., December 1999.

- 36. "Star Polymers and Giant Micelles: Models for Bridging the Gap Between Polymers and Colloids", Heinrich Heine Universität Düsseldorf, Institut für Theoretische Physik II, Düsseldorf, Germany, November 2000.
- 37. "Rheology of Branched Polymers", Aristotle University of Thessaloniki, Department of Chemical Engineering, Thessaloniki, Greece, April 2001.
- 38. "Glass-like Dynamics in Star Polymers", National Hellenic Research Foundation, Institute of Theoretical and Physical Chemistry, Spectroscopy Group, May 2001.
- 39. "Using Polymeric Stars and Micelles to bridge the Gap between Polymers and Colloids", Department of Chemical Engineering, University of Delaware, Newark, DE, July 2001.
- 40. "Glass-like Gelation in Star Polymers and Star/Linear Polymer Mixtures", E.S.P.C.I., Matiere Molle & Chimie, Paris, France, September 2001.
- 41. "Star Dynamics",
  Institute for Theoretical Physics, Program in Dynamics of Complex and Macromolecular Fluids –
  Entangled Polymer Fluids, University of California, Santa Barbara, CA, April 2002.
- "Molecular Manipulation of Transitions in Soft Matter",
   Physics-Chemical Engineering Joint Colloquium, University of Delaware, Newark, DE, September 2002.
   "Jamming Transitions in Ultrasoft Polymeric Colloids".
- Department of Materials Science and Engineering, Pennsylvania State University, College Park, PA, September 2002.
- "Control of the Rheological Behavior of Colloidal Star Polymers",
   Institute for Chemical Research, Kyoto University, Kyoto, Japan, March 2003.
- 45. "Dynamics of Architecturally Complex Macromolecules", ExxonMobil Chemical Company, Baytown Polymer Center, Baytown, TX, October 2003.
- 46. "Vitrification and Depletion Phenomena in Soft Colloidal Systems", joint seminar

  The Benjamin Levich Institute for Physicochemical Hydrodynamics and Department of Chemical
  Engineering, The City College of the City University of New York, and IGERT Soft Materials Series –
  CCNY/Columbia University, New York, N.Y., October 2003.
- 47. "Molecular Control of Interactions in Ultrasoft Colloids: Vitrification, Depletion, Crystallization?", Heinrich Heine Universität Düsseldorf, Institut für Theoretische Physik II, Düsseldorf, Germany, November 2003.
- 48. "Vitrification Phenomena in Colloidal Suspensions and Mixtures", Centre for Research and Technology – Hellas (CERTH), Chemical Process Engineering Research Institute (CPERI), Thessaloniki, Greece, January 2004.
- "Dynamics, Depletion and Crystallization in Soft Colloids and Mixtures",
   Department of Chemical Engineering, University of Delaware, Newark, DE, March 2004.
- 50. "Molecular Manipulation of Transitions in Soft Matter",
  Department of Physics and Astronomy, Soft Matter, University of Pennsylvania, Philadelphia, PA, March
- 51. "Rheology Control of Associative Triblock Copolymer Aqueous Solutions and Gels", Hercules Research Center, Wilmington, DE, March 2004.
- 52. "Tailoring the Flow Properties of Soft Colloidal Systems",
  University of Naples Federico II, Department of Chemical Engineering, Naples, Italy, November 2004.
- 53. "Rheology of Architecturally Complex Macromolecules", University of Salerno, Department of Chemical Engineering, Salerno, Italy, November 2004.
- 54. "Do Polymers Obey Seniority Rules?", University of Crete, Department of Materials Science and Technology, Heraklion, Crete, Greece, December 2004.
- "Towards Control of the Flow Properties of Soft Colloidal Systems",
   National Institute of Standards and Technology (N.I.S.T), Gaithersburg, MD, February 2005.
- 56. "Linear Rheology of Model Comb Polymers", ExxonMobil Chemical Company, Baytown Technology and Engineering Center, Baytown, TX, February 2005.
- 57. "Following the Motion of Branched Macromolecules", University of Crete, Department of Physics, Heraklion, Crete, Greece, March 2005.
- 58. "Linear Rheology of Model Branched Polymers", ExxonMobil Research and Engineering Company, Annandale, NJ, August 2005.
- 59. "Vitrification and Melting in Colloidal Systems",

- Center for Molecular and Engineering Thermodynamics, Department of Chemical Engineering, University of Delaware, Newark, DE, September 2005.
- 60. "Rheology of Model Branched Polymers",

  Pennsylvania State University Department of Materials Science and
  - Pennsylvania State University, Department of Materials Science and Engineering, College Park, PA, September 2005.
- 61. "Rheology of Architecturally Complex Polymers: From Combs to Macromolecular Self-Assemblies", Department of Chemical Engineering Colloquium, Stanford University, Stanford, CA, November 2005.
- 62. "Combs and beyond: Following the motion of architecturally complex polymers",
  Department of Chemical Engineering and Materials Science, University of Minnesota, Polymer Group,
  Minneapolis, MN, November 2005.
- 63. "Rheology of branched polymers and macromolecular assemblies", E.S.P.C.I., Matiere Molle & Chimie, Paris, France, February 2006.
- 64. "Vitrification, melting and flow in dense colloidal dispersions", NCSR DEMOKRITOS, Institute of Physical Chemistry, Athens, Greece, June 2006.
- 65. "Rheology of Architecturally Complex Polymers: From Combs to Macromolecular Self-Assemblies", Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, June 2006.
- 66. "Architecturally complex macromolecules for addressing technologically relevant (and irrelevant?) problems", Polimeri Europa, Research Center Ravenna, Italy, March 7, 2008.
- 67. "Rheological Fingerprinting of Model Soft Colloids", Université du Maine, UMR CNRS 6120 "Polymères, Colloïdes, Interfaces", Le Mans, France, December 3, 2009.
- 68. "Architecturally Complex Macromolecules for Addressing Scientific and Technological Challenges", Michelin Technology Center Ladoux, Clermont-Ferrand, France, December 8, 2009.
- 69. "Rheological Fingerprinting of Aging Soft Colloidal Glasses", Durham University, Department of Chemistry, Durham, UK, December 10, 2009.
- 70. "Stress Relaxation in Entangled Branched Polymers", Max-Planck-Institut für Polymerforschung, Mainz, Germany, February 4, 2010.
- 71. "Rheology of Architecturally Complex Polymers: from Combs to Rings", ETH, Department of Materials, Zurich, Switzerland, April 4, 2012.
- 72. "Rheological probes of entangled polymers and nanocomposites: Relaxation, stretching, yielding, flow alignment",
  - Versalis, Ravenna Research Center, Italy, September 28, 2012.
- 73. "Towards rationalization of the rheology of entangled branched polymers", King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, January 20, 2013.
- "Malleable composite materials from soft colloids",
   University of Cyprus, Department of Mechanical and Manufacturing Engineering, Nicosia, Cyprus,
   February 27, 2013.
- 75. "Metastable states in soft colloidal mixtures",
  Carnegie-Mellon University, Department of Materials Science & Engineering, Pittsburgh, PA, March 22, 2013.
- 76. "Metastable states and rheological transitions in soft colloids",
  University of Houston, Department of Chemical and Biomolecular Engineering, Houston, TX, April, 11, 2013.
- 77. "Nonlinear rheology of entangled branched polymers", ExxonMobil Chemical Company, Baytown Research Center, Baytown, TX, April 12, 2013.
- 78. "Entanglement dynamics in ring polymers: recent progress and open challenges", Institute for Chemical Research, Kyoto University, Kyoto, Japan, May 14, 2013.
- 79. "Tunable metastable states in soft colloidal mixtures", Max-Planck-Institut für Polymerforschung, Mainz, Germany, July 4, 2013.
- "Metastable states in soft colloidal mixtures and nanocomposites",
   Université du Maine, UMR CNRS 6120 "Polymères, Colloïdes, Interfaces", Le Mans, France, September 24, 2013.
- 81. "Metastable states in soft colloidal mixtures and nanocomposites",
  Cornell University, School of Chemical and Biomolecular Engineering, Ithaca, NY, USA, October 11,
  2013.
- 82. "Experimental study of the viscoelasticity of critically purified polymers", ETH, Department of Materials Polymer Physics Group, Zurich, Switzerland, November 20, 2013.
- 83. "Tailoring metastable states in soft colloidal mixtures",

- ETH, Department of Materials, Zurich, Switzerland, November 28, 2013.
- 84. "Exploring metastable states in soft colloidal mixtures", Université de Fribourg, Department of Physics, Fribourg, Switzerland, January 17, 2014.
- 85. "Glasses and gels from soft colloidal mixtures: viscoelasticity, yielding and thermoresversible melting", Université Paris-Est, Institut Navier / Ecole Nationale des Ponts et Chaussees, Paris, France, February 4, 2014.
- 86. "From combs strain hardening to stars depletion gels: macromolecular architecture and soft matter physics", Saint-Gobain Recherche, Aubervilliers, France, February 5, 2014.
- 87. "Nanocomposites under flow: dispersing nanoparticle assemblies in polymer melts", Forschungszentrum Jülich, Institute for Complex Systems, Soft Matter, Jülich, Germany, April 2, 2014.
- 88. "Self-assembly, metastability and directed self-assembly in soft colloidal systems: A rheological perspective",
  - Nestlé Research Center, Lausanne, Switzerland, April 25, 2014.
- 89. "Metastability transitions in soft colloids and nanocomposites", Center for Molecular and Engineering Thermodynamics, Department of Chemical Engineering, University of Delaware, Newark, DE, May 19, 2014.
- 90. "Nanocomposites as model colloidal gels: effects of flow fields", Ecole Superieure de Physique et Chimie Industrielles (ESPCI ParisTech), Paris, France, June 10, 2014.
- 91. "Directed assembly and solid-liquid transitions in soft colloid linear polymer mixtures", Université Paris VI, Irvy sur Seine, Paris, France, June 11, 2014.
- 92. "Rheology of entangled branched polymers: progress, surprises and perspectives", Ecole Superieure de Physique et Chimie Industrielles (ESPCI ParisTech), Paris, France, June 24, 2014.
- 93. "Rheology of ring polymers: a departure from the classic picture",
  Case Western Reserve University, Department of Macromolecular Science and Engineering, Cleveland,
  OH, October 10, 2014.
- 94. "On the motion of cyclic macromolecules: a departure from the classic picture", University of Crete, Department of Physics, Heraklion, Crete, Greece, December 4, 2014.
- 95. "Hairy colloidal particles: tuning glass transition, gelation and crystallization", ETH, Department of Mechanical and Process Engineering, Particle Technology Laboratory, Zurich, Switzerland, January 9, 2015.
- 96. "Entanglement dynamics of polymers with and without free ends",
  The University of Texas at Austin, McKetta Department of Chemical Engineering, Austin, TX, USA,
  March 4, 2015.
- 97. "Comb and star macromolecules: some rheological consequences of macromolecular topology", The Chinese Academy of Sciences, Institute of Chemistry, Laboratory of Engineering Plastics, Beijing, China, August 24, 2015.
- 98. "Comb and star macromolecules: some rheological consequences of macromolecular topology", Institute Charles Sadron (ICS), Strasbourg, France, September 1, 2015.
- 99. "Molecular manipulation of the flow properties of soft matter",
  University of Crete, Department of Materials Science & Technology, Heraklion, Crete, Greece, December 14, 2015.
- 111. "Molecular manipulation of the flow properties of soft matter", University of Naples Federico II, Department of Chemical Engineering, Naples, Italy, January 26, 2016.
- 112. "Molecular manipulation of the flow properties of soft matter", Ben Gurion University of the Negev, Chemical Engineering Depertment, Beer Sheva, Israel, February 11, 2016.
- 113. "Molecular manipulation of the flow properties of soft matter",
  Technical University of Denmark (DTU), Department of Chemical and Biochemical Engineering, Lyngby,
  Denmark, March 14, 2016.
- 114. "Network dynamics in nanofilled polymers", Technical University of Denmark (DTU), Department of Chemical and Biochemical Engineering, Lyngby, Denmark, May, 2016.
- "Network dynamics in nanofilled polymers",
   CNRS Solvay, Laboratory of polymers and advanced materials, Lyon, France, July 25, 2016.
- 116. "Flow transitions in tunable soft colloids",
  University of Montpellier, Laboratoire Charles Coulomb, Montpellier, France, September 9, 2016.
- 117. "Molecular manipulation of the flow properties of soft matter", Eindhoven University of Technology, Institute for Complex Molecular Systems (ICMS), Eindhoven, The Netherlands, October 27, 2016.

- 118. "Dendronized polymers, supersoft elastomers and ductile-to-brittle transition", Pennylvania State University, Department of Materials Science & Engineering, State College, PA, USA, March 17, 2017.
- 119. "Dendronized polymers, supersoft elastomers and ductile-to-brittle transition", University of Athens, Department of Chemistry, Industrial Chemistry Lab., April 20, 2017.
- 120. "Soft colloid polymer mixtures: gelation and confinement effects", Columbia University, Department of Chemical Engineering, New York, NY, USA, May 5, 2017.
- 121. "Interplay of macromolecular motion and architecture", Institut National des Sciences Appliquées (INSA), MATEIS, Lyon, France, September 8, 2017.
- 122. "Thick polymers, supersoft elastomers and ductile-to-brittle transition", Institut National des Sciences Appliquées (INSA), MATEIS, Lyon, France, September 12, 2017.
- 123. "Supramolecular living polymers: interactions, viscoelasticity and spreading", ETH, Department of Materials, Zurich, Switzerland, December 21, 2017.
- 124. "Dynamics of dense soft colloids with varying shape and densification modulus" Technische Universiteit Eindhoven, Department of Mechanical Engineering, Eindhove, NL, February 26, 2018.
- 125. "Dynamics of dense soft colloids: shape and osmotic effects", KITP, University of California, Santa Barbara, CA, March 16, 2018.
- 126. "Tunable supramolecular structures: interactions ad viscoelasticity", Universite catholique de Louvain, Bio and Soft Matter, Louvain la Neuve, Belgium, September 12, 2018.
- 127. "Can soft hairy nanoparticles jam? A comparison between polyelectrolyte microgels and star polymers", Indian Institute of Technology, Kanpur, India, December 21, 2018.
- 128. "Some outstanding challenges in polymer rheology: nonlinear response and macromolecular architecture", Maastricht University, Aachen-Maastricht Institute for Biobased Materials, The Netherlands, January 30, 2019

# **Teaching Activities:**

## University of Crete:

- "Dispersions of Colloidal Systems", Dept. of Chemistry (with G. Fytas), spring 1994.
- "Mechanical Properties of Soft Matter", Dept. of Physics, 1999-2004.
- "Materials I: Present and Future", Dept. of Materials Science & Technology, fall 2002 (with G. Petekidis), fall 2003.
- "Thermodynamics (with elements of statistical thermodynamics)"; Dept. of Materials Science & Technology, 2003-2008, 2010-2012, 2014-2016.
- "Transport Phenomena in Materials Science"; Dept. of Materials Science & Technology, 2003-5, 2010-2016.
- "Introduction to Polymer Physics", Dept. of Materials Science & Technology, 2003-2015 (with G. Fytas), 2016-.; Dept. of Chemistry, fall 1992 and Dept. of Physics (with S. H. Anastasiadis), 1993, 1996-2000.
- "Introduction to Soft Matter", Introductory graduate-level course, Dept. of Materials Science & Technology, springs 2011, 2012, 2015, 2016 (with M. Vamvakaki).

## University of Delaware:

- "Fluid Mechanics", Dept. of Chemical Engineering, fall 2005 (with A. N. Beris).

## **Invited Tutorial Short courses:**

- Summer School of Advanced Physics, organized yearly by FORTH-IESL and the Department of Physics, University of Crete, in Heraklion. Offered yearly introductory lectures on introduction to soft matter, linear viscoelasticity and polymer rheology: 1993-2004.
- Graduate Program *Polymers and their Applications*, organized by the University of Athens, Department of Chemistry, in Athens. Offered lectures on 'polymer rheology and dynamics', 'introduction to linear viscoelasticity' and 'applications of drag-reduction', springs 1999-2003; 'molecular polymer rheology', springs 2004-2006, 2008,2010.
- Graduate Program *Processes and Processing of Advanced Materials*, organized by the University of Thessaloniki, Department of Chemical Engineering, in Thessaloniki. Offered lectures on 'polymer dynamics'; Fall 1999.
- Summer School *Polymer Characterization*, organized by the International Max-Planck-Research School for Polymer Materials Science, Heraklion, October 2000.
- - "Rheology of Complex Macromolecular Systems", Department of Chemical Engineering, University of Delaware; September-October 2002.
- Winter School *Rheology and Dynamics of Polymers*, organized by the International Max-Planck-Research School for Polymer Materials Science, Dahn, Germany, February 2003.

- Graduate Program *Polymer Science and Technology*, organized by the University of Patras, Departments of Chemical Engineering, Physics and Chemistry, in Patras. Offered lectures on 'molecular rheology of polymers'; Spring 2004.
- *Introduction to Molecular Rheology*, Graduate Lectures, Department of Chemical Engineering, University of Bologna, Italy, March 5-7, 2008.
- Dynamics of Polymers and Polymer Solutions, Polimeri Europa Research Center, Mantova, Italy, June 28-29, 2010
- Probing slow self-assembly phenomena by rheology, Nanodirect Workshop, University of Vigo, Spain, July 13-16, 2012.
- General Introduction to Molecular Rheology, ETH Zürich, Polymer Chemistry Group, December 6, 9, 2013.
- Introduction to Molecular Rheology of Soft Matter, Université Paris-Est, Champs sur Marne, France February 6, 2014.
- *Introduction to Molecular Rheology*, Training short course for young researchers in the context of EU network projects (Dynacop, Somatai, Supolen).
- "From polymers to colloids: a rheological roadmap for tailoring the flow properties of soft matter at molecular level", Greek-German Workshop "Nano-structured soft materials: from polymer self-assembly to stimuli responsive materials", NTUA, Athens, September 28-29, 2016.

## **Professional Activities**

Member of The Society of Rheology, USA (1985-); Technical Chamber of Greece (Registered Professional Engineer since 7-2-1984); American Institute of Chemical Engineers; member (1979-1994); Hellenic Society of Chemical Engineers (1984-); Hellenic Polymer Society (1993-); founding member of the Hellenic Society of Rheology (1996-); European Society of Rheology (ESR).

# **Reviewing and Evaluation Activities**

# 1. International Scientific Journals

Chemical Engineering Science, Physics of Fluids, Colloid and Polymer Science, Macromolecular Symposia, Macromolecules, Polymer Engineering & Science, Rheologica Acta, Physical Review Letters, Journal of Rheology, Journal of the American Chemical Society, Langmuir, Europhysics Letters, Industrial & Engineering Chemistry Research, Canadian Journal of Chemical Engineering, European Polymer Journal, European Journal of Mechanics—B / Fluids, Chemistry of Materials, Polymer, Journal of Colloid and Interface Science, Nanotechnology, Physical Review E, European Physical Journal E – Soft Matter, Physical Chemistry Chemical Physics, Journal of Polymer Science. Part B: Polymer Physics, Soft Matter, Molecular Physics, Macromolecular Rapid Communications, Applied Rheology, Journal of Non-Newtonian Fluid Mechanics, Journal of Fluid Mechanics, Microelectronics Engineering, Nature, Nature Materials, Journal of Chemical Physics, Journal of Physical Chemistry B, Nano Letters, Journal of Physics Condensed Matter, ACS Nano, Macro Letters, Korea-Australia Rheology Journal, Journal of Visualized Experiments, Mechanics of Time-Dependent Materials, Biomacromolecules, Nature Physics, RSC Advances, AIChE J., Faraday Discussions, ACS Biomaterials Sci. Eng., Science, Polymers, Physical Review X, Nature Scientific Reports, Physical Review Fluids, PNAS.

### 2. Proposals

U.S. National Science Foundation (NSF)

Natural Sciences and Engineering Research Council of Canada (NSERC)

European Union - Directorate General for Research

European Research Council

Greek General Secretariat for Research and Technology (GSRT)

Greek Ministry of Education; ELIDEK (Hellenic Foundation for Research and Innovation)

National Scholarships Foundation (IKY), Greece

Research Committee: Universities of Patras, Ioannina, Technical Univ. of Crete, NTUA.

FWO (Fonds voor Wetenschappelijk Onderzoek ) – Vlaanderen, Belgium

EPSRC (Engineering and Physical Sciences Research Council) - UK

Review Panel, Neutron Facility, Forschungszentrum Jülich, Germany (2003-2008).

Mitsubishi Research Institute, Japan.

FNRS (Fonds de la Recherche Scientifique), Belgium

ANR (Agence Nationale de la Recherche), France

Italian Ministry of Education, University and Research (MIUR)

Technical University of Crete, Chania; University of Patras; University of Ioannina.

DPI (Dutch Polymer Institute) – The Netherlands

FOM (Foundation for Fundamental Research on Matter) – The Netherlands

ACS, The Petroleum Research Fund, USA.

SEV, Hellenic Federation of Enterprises, Greece

ETH Research Commission

CECAM - Centre Européen de Calcul Atomique et Moléculaire

Research Promition Foundation (RPF), Cyprus

FWF, Austrian Science Fund

Irish Research Council

#### 3. Committees

Member of Ph.D and M.S. theses committees/external referee in Universities of Crete, Athens, NTUA, Patras, Thessaloniki, British Columbia, Naples, Université Catholique Louvain-la-Neuve, Technical University of Denmark, Twente, McGill, Granada, Katholieke Universiteit Leuven, ESPCI – Université Pierre et Marie Curie – Paris 6, Düsseldorf, Université du Maine, Université Paris-Est, University of Groningen, Université catholique de Louvain, University of Vienna, ETH Zurich, T U Eindhoven.

Member of faculty promotion/selection committees in Universities of Crete, Athens, Thessaly, NTUA, Patras, Cyprus, Ioannina, FORTH (IESL, ICE/HT), Delaware, Leeds.

Member of Review Committee AERES (Agence d'évaluation de la research et de l'enseignement supérieur), CNRS-UMR 5223, Lyon, France, February 1-3, 2010.

Member of Review Committee AERES (Agence d'évaluation de la research et de l'enseignement supérieur), Institut Charles Sadron, Strasbourg, France, December 14-15, 2011.

Member of the External Scientific Advisory Board, CNRS-UMR 5223 (Ingénierie des Matériaux Polymères), University of Lyon 1, Lyon, France, February 7-8, 2012.

## 4. Conference abstracts

XIIth International Congress on Rheology, Quebec City, Canada, August 1996.

2<sup>nd</sup> Annual European Rheology Conference (AERC), Grenoble, France, 2005.

7<sup>th</sup> World Congress of Chemical Engineering, Glasgow, UK, 2005.

1st International Soft Matter Conference, Aachen, Germany, October 2007.

XVth International Congress on Rheology, Monterey, CA, August 3-8, 2008.

6<sup>th</sup> Annual European Rheology Conference (AERC), Göteborg, Sweden, April 6-8, 2010.

2<sup>nd</sup> International Soft Matter Conference, Granada, Spain, July 5-8, 2010.

8<sup>th</sup> Liquid Matter Conference, Vienna, Austria, September 6-10, 2011.

3<sup>rd</sup> International Soft Matter Conference, Rome, Italy, September 16-19, 2013.

5<sup>th</sup> International Soft Matter Conference, Edinburgh, UK, June 3-7, 2019.

# **Meetings Organization**

- 1. Sixth International Symposium on Polymer Analysis and Characterization (ISPAC-6), Aghia Pelaghia, Crete, July 1993 (member of the Organizing Committee).
- 2. Fourth Mediterranean School and Symposium on Science and Technology of Advanced Polymer Based Materials (MEDNET), Fodele, Crete, June 1995 (member of the Organizing Committee).
- 3. Symposium on Rheology and Computational Fluid Mechanics, dedicated to the memory of Prof. Tasos Papanastasiou, Nicosia, Cyprus, July 1996 (member of the Organizing and Scientific Committees).
- 5. European Polymer Federation Meeting on Polymeric Materials (EPF96), Aghia Pelaghia, Crete, October 1996 (member of the Organizing Committee).
- 6. Second Meeting of the Hellenic Society of Rheology and International Symposium, Heraklion, Crete, September 1998 (member of the Scientific Committee; chairman of the Organizing Committee).
- 7. Southern Europe Conference on Rheology, Eurorheo 99-3, Sangineto, Italy, September 1999 (member of the Organizing and Scientific Committees).
- 8. *35ème Colloque Annuel du Group Français de Rheologie*, Grenoble, France, October 2000 (member of the Organizing and Scientific Committees).
- 9. Balkan Seminar on Rheology and IXth National Rheology Workshop, Sofia, Bulgaria, April 2001 (member of the International Program Committee).
- 10. Third International Meeting of the Hellenic Society of Rheology Dedicated to Professor Andreas Acrivos on the Occasion of his Retirement, Patras, Greece, June 2001 (member of the Scientific and Organizing Committees).
- 11. 5<sup>th</sup> Panhellenic Polymer Meeting, Heraklion, Crete, Greece, December 2001 (chairman of the Organizing Committee).
- 12. 1st Annual European Rheology Conference, Guimaraes, Portugal, September 2003 (session organizer).

- 13. *PPS-2003*, *Regional Meeting of the Polymer Processing Society (Europe)*, Athens, Greece, September 2003 (member of the Scientific and Organizing Committees).
- 14. HUSC: From Hard to Ultrasoft Colloids. Colloids and Polymeric Assemblies near to and far from Equilibrium, Koutouloufari, Crete, Greece, June 2004 (conference chair).
- 15. Fourth International Meeting of the Hellenic Society of Rheology, Athens, Greece, June 2004 (member of the Scientific and Organizing Committees).
- 16. 76th Meeting of the Society of Rheology, Lubbock, TX, USA, February 2005 (session organizer).
- 17. 2<sup>nd</sup> Annual European Rheology Conference, Greboble, France, April 2005 (session organizer).
- 18. 3<sup>rd</sup> Annual European Rheology Conference, Hersonisos, Crete, Greece, April 2006 (conference co-chair).
- 19. First ESR short courses (Interfacial Rheology and Applications, and Multiscale Modeling Methodologies), Hersonisos, Crete, Greece, April 2006 (chair of the organizing committee).
- 20. 11<sup>th</sup> International Conference on Proprties and Phase Equilibria for Product and Process Design, *PPEPPD07*, Hersonissos, Crete, Greece, May 2007 (member of the local organizing committee).
- 21. International Soft Matter Conference, Aachen, Germany, October 2007 (member of Program Committee).
- 22. *Colloidal Gels and Glasses*, SOFTCOMP topical meeting and joint EU-IFPRI Workshop, Hersonisos, Crete, Greece, June 13-14, 2008 (organizer).
- 23. IFPRI AGM 2009, Hersonisos, Crete, Greece, June 15-19, 2008 (local arrangements organizer)
- 24. XV<sup>th</sup> International Congress on Rheology, Monterey, California, USA, August 2008 (member of the International Advisory Committee and Technical Program Committee).
- 25. 7<sup>th</sup> Panhellenic Polymer Meeting, Ioannina, Greece, September-October 2008 (member of the Scientific Committee).
- 26. 6th Annual European Rheology Conference (AERC), Göteborg, Sweden, April 7-9, 2010 (session coorganizer).
- 27. 2<sup>nd</sup> International Soft Matter Conference 2010, Granada, Spain, July 5-8, 2010 (member of the International Program Committee).
- 28. MACRO 2010: 43<sup>rd</sup> IUPAC World Polymer Congress, Glasgow, UK, July 11-16, 2010 (member of the International Advisory Board).
- 29. 5<sup>th</sup> Pacific Rim Conference on Rheology (PRCR5), Sapporo, Japan, August 1-6, 2010 (session organizer, member of the program committee).
- 30. 8<sup>th</sup> Liquid Matter Conference (LMC8), Vienna, Austria, September 6-10, 2011 (member of the International Program Committee).
- 31. 7<sup>th</sup> Annual European Rheology Conference (AERC), Suzdal, Russia, May 10-14, 2011 (session co-organizer, International Advisory Board).
- 32. SOFTCOMP Annual Meeting, Heraklion, Crete, Greece, May 16-18, 2011 (local organizer).
- 33. 6<sup>th</sup> International Meeting of the Hellenic Society of Rheology, Athens, Greece, June 28-29, 2011 (member of scientific and organizing committees).
- 34. MACRO 2012: 44th IUPAC World Polymer Congress, Virginia Tech, USA, June 24-29, 2012 (Polymer Physics session co-organizer).
- 35. *3<sup>rd</sup> International Soft Matter Conference (ISMC2013)*, Rome, Italy, September 15-19, 2013 (member of the International Program Committee).
- 36. 9<sup>th</sup> Hellenic Polymer Conference, Thessaloniki, Greece, November 29 December 1, 2012 (member of the scientific committee).
- 37. 9th Annual European Rheology Conference (AERC2014), Karlsruhe, Germany, April 8-11, 2014 (session coorganizer).
- 38. 7<sup>th</sup> International Meeting of the Hellenic Society of Rheology and Satellite meeting on Attractive Colloids and Gels, Heraklion, Crete, Greece, July 3-8, 2014 (member of the organizing committee).
- 39. 10<sup>th</sup> Annual European Rheology Conference (AERC2015) and Golden Jubilee Meeting of the French Group of rheology (GFR), Nantes, France, April 14-17, 2015 (session co-organizer).
- 40. *Dense Suspension Flow*, Softcomp topical workshop, Edinburgh, UK, June 1-3, 2015 (co-organizer and discussion leader).
- 41. 8<sup>th</sup> International Meeting of the Hellenic Society of Rheology, Samos, Greece, June 28-30, 2015 (member of the scientific committee).
- 42. 87<sup>th</sup> Annual Meeting of the Society of Rheology, Baltimore, Maryland, USA, October 11-15, 2015 (session co-organizer).
- 43. Nanoparticle Assembly: From Fundamentals to Applications: Faraday Discussion, Indian Institute of Technology Mumbai, India, January 7-9, 2016 (member of the scientific committee).
- 44. *MACRO 2016: 46<sup>th</sup> IUPAC World Polymer Congress*, Istanbul, Turskey, July 17-21, 2016 (Polymer Physics session co-organizer).

- 45. XVIIth International Congress on Rheology (ICR2016), Kyoto, Japan, August 8 13, 2016 (member of the international scientific committee).
- 46. 11<sup>th</sup> Meeting of the Hellenic Polymer Society, Heraklion, Crete, November 3-5, 2016 (member of the organizing committee).
- 47. Nanofillers 2017, Aldemar Royal Knossos Village, Heraonisos, Crete, April 2017 (member of the organizing committee).
- 48. 9<sup>th</sup> International Meeting of the Hellenic Society of Rheology, Limassol, Cyprus, July 12-14, 2017 (member of the scientific committee).
- 49. Supolen meeting on associating polymers, Hersonissos, Crete, September 21-23, 2017 (member of the organizing and scientific committees).
- 50. RINGS workshop, Hersonissos, Crete, September 25-27, 2017 (co-organizer).
- 51. 12<sup>th</sup> Hellenic Polymer Society International Conference, Ioannina, Greece, September 30 October 3, 2018 (member of the scientific committee).
- 52. 13th Annual European Rheology Conference, Portoroz, Slovenia, April 8-11, 2019 (session organizer).
- 53. 9th Hellenic Society of Rheology Conference, Samos, Greece, June 24-27, 2019 (member of the scientificcommittee).
- 54. 5<sup>th</sup> International Soft Matter Conference, Edinburgh, UK, June 3-7, 2019 (member of the ProgramCommittee).
- 55. European Polymer Congress EPF, Hersonissos, Crete, June 9-14, 2019 (member of scientific committee).
- 56. XIX<sup>th</sup> International Congress on Rheology, Athens, Greece, July 29 August 4, 2023 (chair)

## **Research Funding:**

- PI/coordinator/officer in numerous projects (mainly EU and National and occasionally industrial), continuously since 1994. Projects include (i) EU Brite-Euram, FAIR, ITN: HUSC, Dynacop, Comploids, Supolen; SMALL Nanodirect; ETN: Colldense, DoDyNet; Network of Excellence Softcomp; Large scale infrastructures ESMI, EUSMI; (ii) National (EPET, PAVE, PENED, Heraklitos, Excellence-2011); FORTH-IESL Internal Grants for Excellence in Research 2000-1; (iii) inter-institutional (KAUST-Vienna-Princeton-FORTH); (iv) industrial: DuPont, Polimeri-Europa (Versalis-ENI), Indevco, Michelin.

## **Administrative Activities:**

- Member/Chairman of the Organizing Committees of FO.R.T.H.'s internal review meetings (1996-1999).
- Member of I.E.S.L.'s committees on laboratory/office space/organization (1995-2002), Institute property (1994-1997) and Institute acquisitions (1998-2002).
- Member of the Scientific Council, FO.R.T.H.-I.E.S.L. (1999-2006).
- Deputy Director, FO.R.T.H.-I.E.S.L. (2001-2002).
- Deputy National Representative to EU-FP6-Nanotechnology (2004-2005).
- Graduate Program, Dept. of Materials Science & Technology, Univ. of Crete: Created and chaired the program leading to Masters and PhD degrees (2002-2007; 2014-2017).
- Research Committee, Univ. of Crete, member (2009-2010).
- Chairperson, Dept. of Materials Science & Technology, Univ. of Crete (Sept. 2010- Sept. 2013).
- School of Sciences, Committee on Undergraduate Education, member (2014-2016).