



January 2016

## CONSTANTINE M. DAFERMOS

### CURRICULUM VITAE

#### **Position**

Alumni-Alumnae University Professor  
Division of Applied Mathematics  
Brown University  
Providence, RI 02912

#### **Education**

Diploma in Civil Engineering, National Technical University of Athens, 1964  
Ph.D., The Johns Hopkins University, 1967.

#### **Professional Appointments**

1987 – Present Alumni-Alumnae University Professor, Brown University.  
1976 – Present Professor, Division of Applied Mathematics, Brown University.  
2006 – 2007 Director, Lefschetz Center for Dynamical Systems.  
1988 – 1993 Director, Lefschetz Center for Dynamical Systems.  
1971 – 1976 Associate Professor, Division of Applied Mathematics, Brown University.  
1968 – 1971 Assistant Professor, Department of Theoretical and Applied Mechanics,  
Cornell University.  
1967 – 1968 Postdoctoral Fellow, Department of Mechanics, The Johns Hopkins  
University.

## Publications

“The Elastic Strip Under Mixed Boundary Conditions,” (with P. S. Theocaris), *J. Appl. Mech.*, 31 (1964), 714-716.

“A Critical Review on the Thickness Effect of Birefringent Coatings,” (with P. S. Theocaris), *Exp. Mech.*, (1964), 1-6.

“On the Existence and the Asymptotic Stability of Solutions to the Equations of Linear Thermoelasticity,” *Arch. Rat. Mech. Analysis*, 29 (1968), 241-271.

“Stability of Orientation Patterns of Liquid Crystals Subject to Magnetic Fields,” *SIAM J. Appl. Math.*, 16 (1968), 1305-1318.

“Some Remarks on Korn’s Inequality,” *Zeit. Ang. Math. Phys.*, 19 (1968), 913-920.

“The Mixed Initial-boundary Value Problem for the Equations of Non-linear Viscoelasticity,” *J. Diff. Equations*, 6 (1969), 71-86.

“Disinclinations in Liquid Crystals,” *Quart. J. Mech. Appl. Math.*, 23 (1970), S49-S64.

“Wave Equations with Weak Damping,” *SIAM J. Appl. Math.*, 18 (1970), 759-767.

“An Abstract Volterra Equation with Applications to Linear Viscoelasticity,” *J. Diff. Equations*, 7 (1970), 554-569.

“Asymptotic Stability in Viscoelasticity,” *Arch. Rat. Mech. Analysis*, 37 (1970), 297-308.

“An Invariance Principle for Compact Processes,” *J. Diff. Equations*, 9 (1971), 239-252.

“Applications of the Invariance Principle for Compact Processes,” *J. Diff. Equations*, 9 (1971), 291-299.

“Polygonal Approximations of Solutions of the Initial Value Problem for a Conservation Law,” *J. Math. Anal. and Applications*, 38 (1972), 33-41.

“Uniform Processes and Semicontinuous Liapunov Functionals,” *J. Diff. Equations*, 11 (1972), 401-415.

“Asymptotic Behavior of Solutions of a Hyperbolic Conservation Law,” *J. Diff. Equations*, 11 (1972), 416-424.

“Asymptotic Behavior of Nonlinear Contraction Semigroups,” (with M. Slemrod), *J. Functional Analysis*, 13 (1973), 97-106.

- “The Entropy Rate Admissibility Criterion for Solutions of Hyperbolic Conservation Laws,” *J. Diff. Equations*, 14 (1973), 202-212.
- “Solution of the Riemann Problem for a Class of Hyperbolic Systems of Conservation Laws by the Viscosity Method,” *Arch. Rat. Mech. Analysis*, 52 (1973), 19.
- “Structure of Solutions of the Riemann Problem for Hyperbolic Systems of Conservation Laws,” *Arch. Rat. Mech. Analysis*, 53 (1974), 203-217.
- “Quasilinear Hyperbolic Systems,” in *Nonlinear Waves*, (S. Leibovich and A.R. Seebass, Eds.), Cornell University Press, (1974), 82-102.
- “Semiflows Generated by Compact and Uniform Processes,” *Math. Systems Theory*, 8 (1974), 142-149.
- “What Does the Qualitative Theory of Differential Equations Have to Offer to Stability Theory?” *Proc. VI-U. S. Nat. Congress Applied Mechanics*, (1974), 87-92.
- “The Entropy Rate Admissibility Criterion in Thermoelasticity,” *Accad. Naz. dei Lincei, Ser. VIII*, Vol. LVII (1974), 113-119.
- “The Riemann Problem for Certain Classes of Hyperbolic Systems of Conservation Laws,” (with R.J. DiPerna), *J. Diff. Equations*, 20 (1976), 90-114.
- “Contraction Semigroups and Trend to Equilibrium in Continuum Mechanics,” *Springer Lecture Notes in Math.*, No. 503 (1976), 295-306.
- “Almost Periodic Processes and Almost Periodic Solutions of Evolution Equations,” *Dynamical Systems*, (A. Bednarek and L. Cesari, Eds.), Academic Press, New York, (1977), 43-57.
- “Characteristics in Hyperbolic Conservation Laws: A Study of Asymptotic Behavior of Solutions,” *Nonlinear Analysis and Mechanics*, (R.J. Knops, Ed.), *Research Notes in Math.* No. 17, Pitman, London, (1977), 158.
- “Generalized Characteristics and the Structure of Solutions of Hyperbolic Conservation Laws,” *Indiana Univ. Math. J.*, 26 (1977), 1097-1119.
- “Topological Dynamics and the Asymptotic Behavior of Solutions of Evolution Equations,” (in Greek) *Greek Mathematical Society Lectures*, 2 (1977), 14-24.
- “Asymptotic Behavior of Solutions of Evolution Equations,” *Nonlinear Evolution Equations* (M.G. Crandall, Ed.), Academic Press, NY (1978), 103-123.
- “Energy Methods for a Class of Nonlinear Hyperbolic Volterra Equations,” (with J.A. Nohel), *Communications in Partial Diff. Equations*, 4 (1979), 219-278.
- “Stability of Motions of Thermoelastic Fluids,” *J. Thermal Stresses*, 2 (1979), 127-134.

- “The Second Law of Thermodynamics and Stability,” *Arch. Rat. Mech. Analysis*, 70 (1979), 167-179.
- “Hyperbolic Balance Laws in Continuum Physics,” *Springer Lecture Notes in Physics*, No. 98 (1979), 107-121.
- “Asymptotic Behavior of Solutions of Hyperbolic Balance Laws,” *Bifurcation Phenomena in Math. Physics* (C. Bardos, Ed.), D. Reidel, Dordrecht, (1980), 521-533.
- “The Equations of Elasticity are Special,” *Trends in Applications of Pure Mathematics to Mechanics*, 3 (R.J. Knops, Ed.), Pitman, London (1981), 96-103.
- “Can Dissipation Prevent the Breaking of Waves?” *Trans. 26th Conf. Army Math.* (1981), 187-198.
- “A Nonlinear Hyperbolic Volterra Equation in Viscoelasticity,” (with J.A. Nohel), *American J. Math.*, Supplement dedicated to P. Hartman (1981), 87-116.
- “Conservation Laws with Dissipation,” *Nonlinear Phenomena in Mathematical Sciences* (V. Lakshmikantham, Ed.), Academic Press, New York, (1982), 289-294.
- “Hyperbolic Systems of Balance Laws with Inhomogeneity and Dissipation,” (With L. Hsiao), *Indiana U. Math. J.*, 31 (1982), 471-491.
- “Global Smooth Thermomechanical Processes in One-dimensional Nonlinear Thermo-viscoelasticity,” (with L. Hsiao), *J. Nonlinear Analysis*, 6 (1982), 435-454.
- “Global Smooth Solutions to the Initial boundary Value Problem for the Equations of One-dimensional Nonlinear Thermoviscoelasticity,” *SIAM J. Math. Analysis*, 13 (1982), 397-408.
- “Adiabatic Shearing of Incompressible Fluids with Temperature Dependent Viscosity,” (with L. Hsiao), *Quart. Appl. Math.*, XLI (1983), 45-58.
- “Stabilizing Effects of Dissipation,” *Proc. EQUADIFF 82, Springer Lecture Notes in Math.*, No. 1017 (1983), 140-147.
- “Hyperbolic Systems of Conservation Laws,” *Systems of Nonlinear Partial Differential Equations*, (J.M. Ball, Ed.), NATO ASI Series, Series C, No. 111, D. Reidel, Dordrecht (1983), 25-70.
- “Discontinuous Thermokinetic Processes,” Appendix 4B in *Rational Thermodynamics*, (Second Edition) by C.A. Truesdell, Springer Verlag, New York, (1984), 211-218.

“Conservation Laws Without Convexity,” *Springer Lecture Notes in Physics*, No. 195, (1984), 20-24.

“Stabilizing Effects of Dissipation,” *Partial Differential Equations and Dynamical Systems*, (W.E. Fitzgibbon, Ed.), *Research Notes in Math* No. 101, Pitman, London, (1984), 5,134-157.

“Large Time Behavior of Solutions of Hyperbolic Balance Laws,” *Bull. Greek Math. Soc.*, 25 (1984), 15-29.

“Dissipation Stabilization and the Second Law of Thermodynamics,” *Springer Lecture Notes in Physics*, No. 228 (1985), 44-88.

“Regularity and Large Time Behavior of Solutions of a Conservation Law Without Convexity,” *Proc. Royal Soc. Edinburgh*, 99A (1985), 201-239.

“Energy Methods for Quasilinear Hyperbolic Initial-boundary Value Problems: Applications to Elastodynamics,” (with W.J. Hrusa), *Arch. Rational Mech. Analysis*, 87 (1985), 267-292.

“Dissipation in Materials with Memory,” *Viscoelasticity and Rheology* (A. Lodge, J.A. Nohel, and M. Renardy Eds.), Academic Press, New York (1985), 221-234.

“Contemporary Issues in the Dynamic Behavior of Continuous Media,” *LCDS Lecture Notes* 851.

“Development of Singularities in the Motion of Materials with Fading Memory,” *Arch. Rational Mech. Analysis*, 91 (1986), 193-205.

“Development of Singularities in Solutions of the Equations of Nonlinear Thermoelasticity,” (with L. Hsiao), *Quart. Appl. Math.*, XLIV (1986), 463-474.

“Quasilinear Hyperbolic Systems with Involutions,” *Arch. Rational Mech. Analysis*, 94 (1986), 373-389.

“Estimates for Conservation Laws with Little Viscosity,” *SIAM J. Math. Analysis*, 18 (1987), 409-421.

“Trend to Steady State in a Conservation Law with Spatial Inhomogeneity,” *Quart. Appl. Math.*, XLV (1987), 313-319.

“Solutions in for a Conservation Law with Memory,” *Analyse Mathematique et Applications*, GauthierVillars, Paris (1988), 117-128.

“Solutions with Shocks for Conservation Laws with Memory,” *Amorphous Polymers and Non Newtonian Fluids* (C. Dafermos, J. L. Ericksen, and D. Kinderlehrer, Eds.) Springer Verlag, New York (1987), 33-55.

“Trajectories and Singular Points in Steady-State Models of Two-Phase Flows” (with Z. Bilicki, J. Kestin, G. Majda, and D. L. Zeng), *Int. J. Multiphase Flows*, 13 (1987), 511-533.

“Hyperbolic conservation laws with memory”, *Differential Equations* (C. Dafermos, G. Ladas and G. Papanicolaou, Eds.) Marcel Dekker, New York, (1989), 157-165.

“Admissible wave fans in nonlinear hyperbolic systems” *Arch. Rational Mech. Analysis*, 106 (1989), 243-260.

“Generalized characteristics in hyperbolic systems of conservation laws” *Arch. Rational Mech. Analysis* 107 (1989), 127-155.

“Generalized characteristics, uniqueness and regularity of solutions in a hyperbolic system of conservation laws” (with X. Geng), *Analyse non Linéaire* 8 (1991), 231-269.

“Generalized characteristics in hyperbolic systems of conservation laws with special coupling” (with X. Geng), *Proc. Royal Soc. Edinburgh*, 116A (1990), 245-278.

“Equivalence of referential and spatial field equations in continuum physics” *Notes on Numerical Fluid Mechanics* 43 (1993), 179-83.

“Large time behavior of solutions of hyperbolic systems of conservation laws with periodic initial data” *J. Diff. Equations* 121 (1995), 183-202.

“Stability for systems of conservation laws in several space dimensions” *SIAM J. Math. Analysis* 26(1995), 1403-1414.

“A system of conservation laws with frictional damping”, *Zeit. Ang. Math. Phys.* 46 (1995), S294-S307.

“The vanishing viscosity method in one-dimensional thermoelasticity”, (with G.Q. Chen), *Trans. AMS* 347 (1995), 531-541.

“Hyperbolic systems of conservation laws,” *Proceedings Int. Congress Math. 1994*, Birkhäuser-Verlag, Basel (1995), 1096-1107.

“Entropy and the stability of classical solutions of hyperbolic systems of conservation laws” *LNM* 1640 (1996), 48-69.

“Entropy for hyperbolic systems of conservation laws in several space dimensions” *AMS/IP Studies in Advanced Math.* 3 (1997), 27-41.

“Global solutions for a system of conservation laws of viscoelastic materials with memory”, (with G.Q. Chen), *J. Partial Diff. Eqs.* 10 (1997), 369-383.

- “Balance laws in continuum physics” *Advanced Topics in Theoretical Fluid Mechanics*, (J. Malek, J. Necas and M. Rokyta, Eds.), *Pitman Research Notes in Mathematics* No.392, Longman, London (1998), 89–117.
- “Genuinely nonlinear hyperbolic systems of two conservation laws” *Contemporary Math.* 238 (1999), 115-126.
- “Entropy for hyperbolic conservation laws” in *Entropy*, Chapter 6, (A. Green, G. Keller 7 and G. Warnecke, Eds.), Princeton University Press, 2004.
- “Continuous solutions for balance laws” *Ricerche di Matematica*, 55 (2006), 79-91.
- “Hyperbolic conservation laws with weak dissipation” *Journal of Hyperbolic Equations*, 3 (2006), 505-527.
- “On two-dimensional sonic-subsonic flow” (with G. –Q. Chen, M. Slemrod and D. Wang). *Comm. Math. Phys.*, 271 (2007), 635-637.
- “Hyperbolic conservation laws with involutions and contingent entropies” *Proc. Symp. Appl. Math. AMS*, 65 (2007), 193-217.
- “Wave fans are special” *Acta Math. Appl. Sinica* **24** (2008), 369-374.
- “Global BV solutions for the  $p$ -system with frictional damping” (with R. Pan). *SIAM J. Math. Anal.* **41** (2009), 1190-1205.
- “A variational approach to the Riemann problem for hyperbolic conservation laws” *Discrete and Continuous Dyn. Systems* **23** (2009), 185-195.
- “Strong shocks in nonisentropic gas dynamics” *Acta Math. Scientia* **29** (2009), 973-979.
- “Generalized characteristics and the Hunter-Saxton equation” *Journal of Hyperbolic Equations*, **8** (2011), 159-168.
- “Maximal dissipation in equations of evolution,” *J. Diff. Equations* **252** (2012), 567-587.
- “N-waves in hyperbolic balance laws,” *Journal of Hyperbolic Equations*, **9** (2012), 339-354.
- “Nonconvex entropies for conservation laws with involutions,” *Philosophical Transactions of the Royal Society* A371: 20120344 (2013), 1-13.
- “Hyperbolic systems of balance laws with weak dissipation II,” *Journal of Hyperbolic Equations* **10** (2013), 173-179.
- “Redistribution of damping in hyperbolic systems of conservations laws,” *Accademia Peroritana dei Pericolanti* , *Cl. Sci. Fis. Mat. Natur.* **91** (2013), A7, 12 pp.

- “Heat flow with shocks in media with memory,” *Indiana Univ. Math. J.* **62** (2013), 1443-1456.
- “Redistribution of damping in viscoelasticity,” *Communications in Partial Diff. Equations* **38** (2013), 1274-1286.
- “BV solutions for hyperbolic systems of balance laws with relaxation” *J. Differential Equations* **255** (2013), 2521-2533.
- “Long time behavior of periodic solutions to scalar conservation laws in several space dimensions,” *SIAM J. Math. Anal.* **45** (2013), 2064-2070.
- “Asymptotic behavior of BV solutions to the equations of nonlinear viscoelasticity” *Commun. Inf. Syst.* **13** (2013), 201-209.
- “BV Solutions of hyperbolic balance laws with relaxation in the absence of conserved quantities” *SIAM J. Math. Anal.* **46** (2014), 4014-4034.
- “Regularity of solutions to the equations of thermoelasticity,” *Encyclopedia of Thermal Stresses*. R. Hetnarski (ed.) Springer-Verlag, Berlin, 2014.
- “Hyperbolic Conservation Laws: Analytical Properties,” *Encyclopedia of Applied and Computational Mathematics*. B. Engquist (ed.) Springer-Verlag, Berlin, 2015.
- “Asymptotic behavior of BV solutions to hyperbolic systems of balance laws with relaxation” *Journal of Hyperbolic Equations* **12** (2015), 277-292.
- “Periodic BV solutions of hyperbolic balance laws with dissipative source” *J. Math. Anal. Appl.* **428** (2015), 405-413.
- “Hyperbolic balance laws with relaxation” *Discrete Cont. Dyn. Syst.* (to appear).
- “BV solutions for hyperbolic balance laws with periodic initial data” *Bull. Inst. Math. Acad. Sinica* (to appear).

## **Books**

- Hyperbolic Conservation Laws in Continuum Physics*, Springer, Heidelberg, 2000.
- Hyperbolic Conservation Laws in Continuum Physics*, Tsinghua University Press, Beijing, 2005.
- Hyperbolic Conservation Laws in Continuum Physics*, Second Edition, Springer, Heidelberg, 2005.



*Hyperbolic Conservation Laws in Continuum Physics*, Third Edition, Springer, Heidelberg, 2010.

*Hyperbolic Conservation Laws in Continuum Physics*, Fourth Edition, Springer, Heidelberg, (in press).

### **Books Edited**

*The Breadth and Depth of Continuum Mechanics* (with D. D. Joseph and F. M. Leslie). 8 Springer Verlag, New York, 1986.

*Oscillation Theory, Computation and Methods of Compensated Compactness* (with J. L. Ericksen, D. Kinderlehrer and M. Slemrod). Springer Verlag, New York, 1986.

*Dynamical Problems in Continuum Physics* (with J. L. Bona, J. L. Ericksen, and D. Kinderlehrer). Springer Verlag, New York, 1987.

*Amorphous Polymers and Non Newtonian Fluids* (with J. L. Ericksen and D. Kinderlehrer). Springer Verlag, New York, 1987.

*Differential Equations* (with G. Ladas and G. Papanicolaou). Marcel Dekker, New York, 1989.

*Handbook of Differential Equations* (with E. Feireisl), Volume I, Elsevier, Amsterdam, 2004.

*Handbook of Differential Equations* (with E. Feireisl), Volume II, Elsevier, Amsterdam, 2005.

*Handbook of Differential Equations* (with E. Feireisl), Volume III, Elsevier, Amsterdam, 2006.

*Handbook of Differential Equations* (with M. Pokorný), Volume IV, Elsevier, Amsterdam, 2008.

*Handbook of Differential Equations* (with M. Pokorný), Volume V, Elsevier, Amsterdam, 2009.

### **Invited Lectures 2012**

Special Session on hyperbolic PDE, MAA-AMS Joint Math. Meetings, Boston

Workshop on Hyperbolic Conservation Laws, University of Pittsburgh

INDAM Workshop on Mathematical Models, Rome, Italy

Special lecture, Carnegie-Mellon University

Workshop on Nonlinear PDEs, IMPA, Rio de Janeiro, Brazil

International Conference on Nonlinear PDEs, Oxford, UK

### **Invited Lectures 2013**

Conference on Nonlinear Differential Equations, Cologne, Germany

Conference on Dynamics of Differential Equations, Atlanta, GA

Indiana University, Department of Mathematics

Workshop on Nonlinear Conservation Laws, Banff, Canada

Workshop on Differential Geometry and Continuum Mechanics, Edinburgh, Scotland

International Conference on Applied Mathematics, Heraklion, Crete, Greece

International Workshop on Nonlinear Analysis, Taipei, Taiwan

### **Invited Lectures 2014**

Joint Mathematics Meeting, Baltimore, MD

IMPA (10 Lectures), Rio de Janeiro, Brazil

Meeting on Mechanics and Geometry, Seoul, Korea

Symposium on Applications of Mathematics to Mechanics, Poitier, France

Meeting on Conservation Laws, West Virginia University

Truesdell Memorial Lecture, Society for Natural Philosophy

Meeting on Hamiltonian PDE's, Fields Institute, Toronto, Canada

Meeting on Conservation Laws, Lyon, France

### **Invited Lectures 2015**

Conference on PDEs and Free Boundary Problems, University of Pittsburgh

Workshop on Hyperbolic Conservation Laws and Related Topics. Seoul National University, Seoul, Korea

Fondazione CIME 2015 Course on Mathematical Thermodynamics of Complex Fluids, Cetraro, Italy

International Conference on Nonlinear Analysis, Institute of Mathematics, Academia Sinica, Taipei, Taiwan

Princeton University, Program in Applied and Computational Mathematics

### **Service to the Profession in 2015**

Editorial Board of following publications:

*Quarterly of Applied Mathematics*, Managing Editor

*Acta Mathematica Scientia*

*Archive for Rational Mechanics and Analysis*

*Mathematics Applied in Science and Technology*

*Communications in Applied Analysis*

*Proceedings of the Royal Society of Edinburgh*

*Ricerche di Matematica*

*Revista Matematica Complutense*

*International Journal of Pure and Applied Mathematics*

*Bulletin of Greek Mathematical Society*

*Journal of Dynamics and Differential Equations*

*Journal of Hyperbolic Differential Equations*

*International Journal of Partial Differential Equations*

*Rendiconti Lincei*

Member, International Board, Weizmann Institute of Science, Israel

President, Governing Board, University of Crete

Member, Scientific Board, NSF Research Network on Kinetic Description in Multiscale Problems of Natural Sciences

Member, Scientific Advisory Board, Archimedes Center, Crete, Greece

Member, Institute of Numerical Analysis, Crete, Greece

Member, Scientific Committee, International Conference on Modern Mathematical Methods in Science and Technology, Kalamata, Greece

Member, Scientific Committee, International Conference on Nonlinear PDE, Shanghai, China

## **Honors**

Fellow American Academy of Arts and Sciences, 2001-.

Correspondent Member, Academy of Athens, 1988-.

Honorary Professor, Academia Sinica, China, 2004-.

Foreign Member, Accademia Nazionale dei Lincei, Roma 2011-.

Member, International Board, Weizmann Institute of Science (Israel), 1995-.

Fellow, SIAM, 2009 -.

Fellow, AMS, 2012 - .

Fellow, Society of Scholars, Johns Hopkins University.

Chairman, Society for Natural Philosophy, 1977-78.

Secretary, International Society for the Interaction of Mathematics and Mechanics, 1984-86.

Ordway Chair, University of Minnesota, 1985.

Keeley Fellowship, Wadham College, Oxford, 2001.

Honorary Doctorate, University of Athens, 1987.

Honorary Doctorate, National Technical University (Greece), 1991.

Honorary Doctorate, University of Crete, 2001.

SIAM W.T. and Idalia Reid Prize, 2000.

Cataldo e Angiola Agostinelli Prize, 2011.

GALILEO Medal, City of Padua, 2012.

ISIMM Prize, 2014.

AMS-SIAM Wiener Prize, 2016.

### **Service to Brown University**

1971-73, Sc.B. Concentration Adviser

1973-76, Member, Graduate Program Committee, Division of Applied Mathematics

1976-77, Member, Graduate Council

1979-81, Member, Faculty Policy Group

1982-84, Member, ACUP

1982-84, Member, Executive Committee, Division of Applied Mathematics

1986-88, Member, Executive Committee, Division of Applied Mathematics

1988-93, Director, Lefschetz Center for Dynamical Systems

1991-92, Member, Executive Committee, Division of Applied Mathematics

1993-98, Member, Executive Committee, Division of Applied Mathematics

1994-95, Graduate Representative, Division of Applied Mathematics

1995-99, Member, Graduate Program Committee, Division of Applied Mathematics

1995- , Member, Advisory Committee on Modern Greek Studies

2002-03, Freshman Adviser

2003-05, Graduate Representative, Division of Applied Mathematics

2006-09, Member, Committee on Grievance

2006-08, Freshman Adviser

2006-07, Director, Lefschetz Center for Dynamical Systems

2007-10, College Curriculum Council

2008-11, Chair, Graduate Program, Division of Applied Mathematics

2012 - , Graduate Committee, Division of Applied Mathematics

2014 - , Freshman Adviser

## **Research in Progress**

Dissipative Mechanisms in Nonlinear Analysis and Mechanics

Hyperbolic Conservation Laws

## **Teaching**

1974-75	AM 233, 234, 33
1975-76	AM 223, 224, 291, 292
1976-77	AM 219, 291, 34, 292
1977-78	Sabbatic Leave
1978-79	AM 211, 212, 219, 291, 292
1979-80	AM 223, 224, 291, 292
1980-81	AM 33, 34, 291, 292
1981-82	AM 33, 34, 291, 292
1982-83	AM 219, 221, 291, 292
1983-84	AM 223, 224, 291, 292
1984-85	Sabbatic Leave
1985-86	AM 35, 291, 292, MA 111
1986-87	AM 219, 291, 220, 292
1987-88	AM 223, 291, 224, 292
1988-89	AM 291, 36, 212, 292
1989-90	AM 223, 291, 224, 292
1990-91	AM 33, 281, 34, 282
1991-92	AM 211, 291, 212, 282
1992-93	AM 219, 291, Sabbatic Leave
1993-94	AM 223, 224, 36, 291, 292
1994-95	AM 33, 34, 291, 292
1995-96	AM 223, 224, 291, 292
1996-97	AM 33, 34 14
1997-98	AM 36, 224
1998-99	AM 36, 212

1999-00	AM 35, 36
2000-01	AM 211, Math 221, Sabbatic Leave
2001-02	AM 34, 224
2002-03	AM 33, 211, 291, 292
2003-04	AM 223, 224, 291, 292
2004-05	AM 211, 282
2005-06	Sabbatic Leave, AM 33
2006-07	AM 35, 282
2007-08	APMA 2230, 2240
2008-09	APMA 2110, 2120
2009-10	APMA 0330
2010-11	APMA 0360, 2120
2011-12	Sabbatic Leave, APMA 0350
2012-13	APMA 2110, 2120
2013-14	APMA 0350, 0360
2014-15	APMA 0360, 0330
2015-16	APMA 0330, 2230

### **Direction of Ph.D. Theses**

1971, Frederick Bloom	1985, Scott McIntire
1971, Lewis Leibovich	1985, Athansios Tzavaras
1972, Sarp Adali	1989, Athanasios Lyberopoulos
1977, Rouben Rostamian	1992, Michael Hilgers
1979, Reza Malek Madani	1994, Rustum Choksi
1980, Kim Lyons	1994, Daniel Ostrov
1981, Kim Jong U	1996, Konstantina Trivisa
1982, William Hrusa	2004, Cleopatra Christoforou
1985, Jose Luiz Boldrini	2009, Charis Tsikkou

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