

PUBLICATIONS OF STUART S. ANTMAN

19 April 2019

1. S. S. Antman & W. H. Warner, **Dynamic stability of circular rods**, *Journal of the Society for Industrial and Applied Mathematics* **13** (1965) 1007–1018. DOI: 10.1137/1025091.
2. S. S. Antman & W. H. Warner, **Dynamical theory of hyperelastic rods**, *Archive for Rational Mechanics and Analysis* **23** (1966) 135–162. DOI: 10.1007/BF00251729.
3. **General solutions for extensible elasticae having nonlinear stress-strain laws**, *Quarterly of Applied Mathematics* **26** (1968) 35–47. DOI: 10.1090/ qam/99868.
4. J. B. Keller & S. Antman, editors, ***Bifurcation Theory and Nonlinear Eigenvalue Problems***, Courant Institute Lecture Notes, 1967; W. A. Benjamin, New York, 1969; Russian translation by B. V. Logginov & L. S. Srubshchik, edited by V. A. Trenogin & V. I. Yudovich, Mir, Moscow, 1974.
5. **Equilibrium states of nonlinearly elastic rods**, Chapter XII of [4], pp. 331–358.
6. **A Note on a paper of Tadjbakhsh and Odeh**, *Journal of Mathematical Analysis and Applications* **21** (1968) 132–135. DOI: 10.1016/0022-247X(68)90247-3.
7. **Equilibrium states of nonlinearly elastic rods**, *Journal of Mathematical Analysis and Applications* **23** (1968) 459–470. DOI: 10.1016/0022-247X(68)90083-8.
8. **The shape of buckled nonlinearly elastic rings**, *Zeitschrift für angewandte Mathematik und Physik* **21** (1970) 422–438. DOI: 10.1007/BF01627947.
9. **Existence of solutions of the equilibrium equations for nonlinearly elastic rings and arches**, *Indiana University Mathematics Journal* **20** (1970) 281–302. DOI: 10.1512/iumj.1971.20.20025.

10. S. S. Antman & J. Chen, **Forced sloshing of inviscid fluids**, New York University Technical Report F-70-1, 1970, 19 pp.
11. **Existence and nonuniqueness of axisymmetric equilibrium states of nonlinearly elastic shells**, *Archive for Rational Mechanics and Analysis*, **40** (1971) 329–371. DOI: 10.1007/BF00251796.
12. **The theory of rods**, *Handbuch der Physik*, Vol. VIa/2, edited by C. Truesdell, Springer-Verlag, Berlin-Göttingen-Heidelberg, 1972, pp. 641–703; reprinted in *Mechanics of Solids, Vol. II*, Springer-Verlag, 1984, pp. 641–703.
13. **Angular velocity and momentum potential for a rigid body**, Solution of Problem 71-24, *SIAM Review* **14** (1972) 650–652. DOI: 10.1137/1025091.
14. **Nonuniqueness of equilibrium states for bars in tension**, *Journal of Mathematical Analysis and Applications* **44** (1973) 333–349. DOI: 10.1016/0022-247X(73)90063-2.
15. **Monotonicity and invertibility conditions in one-dimensional nonlinear elasticity**, in *Symposium on Nonlinear Elasticity*, edited by R. W. Dickey, Academic Press, New York, 1973, pp. 57–92.
16. **Qualitative theory of the ordinary differential equations of nonlinear elasticity**, in *Mechanics Today, Vol. 1, 1972*, edited by S. Nemat-Nasser, Pergamon Press, New York, 1974, pp. 58–101.
17. **Foundations of indicator-dilution theory**, in *Dye Curves*, edited by D. Bloomfield, University Park Press, Baltimore, 1974, pp. 21–50.
18. **Kirchhoff’s problem for nonlinearly elastic rods**, *Quarterly of Applied Mathematics* **32** (1974) 221–240. DOI: 10.1090/qam/667026.
19. S. S. Antman & K. B. Jordan, **Qualitative aspects of the spatial deformation of nonlinearly elastic rods**, *Proceedings of the Royal Society of Edinburgh* **73A** (1975) 85–105. DOI: 10.1017/S0308210500016309.
20. **Mathematics, science, and philosophy: New models for old sciences**, *Frostburg State College Journal of Mathematics Education* **9** (1975) 1–23.
21. **Ordinary differential equations of one-dimensional nonlinear elasticity I: Foundations of the theories of nonlinearly elastic rods and shells**, *Archive for Rational Mechanics and Analysis*, **61** (1976) 307–351. DOI: 10.1007/BF00250722.

22. **Ordinary differential equations of one-dimensional nonlinear elasticity II: Existence and regularity theory for conservative problems**, *Archive for Rational Mechanics and Analysis*, **61** (1976) 353–393. DOI: 10.1007/BF00250723.
23. **Fundamental mathematical problems in the theory of nonlinear elasticity**, in *Numerical Solutions of Partial Differential Equations III*, edited by B. Hubbard, Academic Press, New York, 1976, pp. 35–54.
24. S. S. Antman & R. C. Browne, **Local invertibility conditions for geometrically exact nonlinear rod and shell theories**, in *Applications of Methods of Functional Analysis to Problems in Mechanics*, edited by P. Germain & B. Nayroles, *Springer Lecture Notes in Mathematics* **503**, Springer-Verlag, New York, 1976, pp. 159–165.
25. S. S. Antman & E. R. Carbone, **Shear and necking instabilities in nonlinear elasticity**, *Journal of Elasticity* **7** (1977) 125–151. DOI: 10.1007/BF00041087.
26. **Bifurcation problems for nonlinearly elastic structures**, in *Symposium on Applications of Bifurcation Theory*, edited by P. H. Rabinowitz, Academic Press, New York, 1977, pp. 73–125.
27. S. S. Antman & G. Rosenfeld, **Global behavior of buckled states of nonlinearly elastic rods**, *SIAM Review* **20** (1978) 513–566, DOI: 0.1137/1025091; **Corrections and Additions**, *ibid.* **22** (1980) 186–187, DOI: 10.1137/1025091.
28. **Buckled states of nonlinearly elastic plates**, *Archive for Rational Mechanics and Analysis*, **67** (1978) 111–149. DOI: 10.1007/BF00249503.
29. S. S. Antman & H. Brezis, **The existence of orientation-preserving deformations in nonlinear elasticity**, in *Nonlinear Analysis and Mechanics, Heriot-Watt Symposium, Vol. II*, edited by R. Knops, Pitman Research Notes in Mathematics, **27**, Pitman Publishing Co. London, 1978, pp. 1–29. (Technical Report in *Proceedings of Workshop on Existence Theory in Nonlinear Elasticity*, University of Texas, Austin, 1977, pp. 1–34.)
30. **A family of semi-inverse problems of nonlinear elasticity**, in *Contemporary Developments in Continuum Mechanics and Partial Differential Equations*, edited by G. M. de la Penha & L. A. Madeiros, North Holland, Amsterdam, 1978, pp. 1–24.
31. Review of *Bifurcation Problems in Nonlinear Elasticity*, by R. W. Dickey, *SIAM Review* **20** (1978) 402. DOI: 10.1137/1025091.

32. S. S. Antman & J. E. Osborn, **The principle of virtual work and integral laws of motion**, *Archive for Rational Mechanics and Analysis*, **69** (1979) 231–262. DOI: 10.1007/BF00248135.
33. **The eversion of thick spherical shells**, *Archive for Rational Mechanics and Analysis*, **70** (1979) 113–123. DOI: 10.1007/BF00250348.
34. S. S. Antman & T.-P. Liu, **Travelling waves in hyperelastic rods**, *Quarterly of Applied Mathematics* **36** (1979) 377–399. DOI: 10.1090/qam/520121.
35. **Multiple equilibrium states for nonlinearly elastic strings**, *SIAM Journal on Applied Mathematics* **37** (1979) 588–604. DOI: 10.1137/1025091.
36. S. S. Antman & A. Nachman, **Large buckled states of rotating rods**, *Nonlinear Analysis, Theory, Methods, and Applications* **4** (1980) 303–327. DOI: 10.1016/0362-546X(80)90057-7.
37. S. S. Antman & J. E. Dunn, **Qualitative behavior of buckled nonlinearly elastic arches**, *Journal of Elasticity* **10** (1980) 225–239. DOI: 10.1007/BF00127449.
38. **Nonlinear eigenvalue problems for whirling elastic strings**, *Proceedings of the Royal Society of Edinburgh* **85A** (1980) 59–85. DOI: 10.1017/S0308210500011707.
39. **Geometric aspects of global bifurcation in nonlinear elasticity**, in *Geometric Methods in Physics*, edited by G. Kaiser & J. E. Marsden, Springer Lecture Notes in Mathematics **775**, Springer-Verlag, Berlin, 1980, pp. 1–29.
40. **The equations for the large vibrations of strings**, *American Mathematical Monthly* **87** (1980) 359–370.
41. **Global analysis of problems from nonlinear elastostatics**, in *Applications of Nonlinear Analysis in the Physical Sciences*, edited by H. Amann, N. Bazley, K. Kirchgässner, Pitman Publishing Co., Boston, 1981, pp. 245–270.
42. S. S. Antman & C. S. Kenney, **Large buckled states of nonlinearly elastic rods under torsion, thrust, and gravity**, *Archive for Rational Mechanics and Analysis*, **76** (1981) 289–338. DOI: 10.1007/BF00249969.
43. J. C. Alexander & S. S. Antman, **Global and local behavior of bifurcating multidimensional continua of solutions for multiparameter nonlinear eigenvalue problems**, *Archive for Rational Mechanics and Analysis*, **76** (1981) 339–354. DOI: 10.1007/BF00249970.

44. **Material constraints in continuum mechanics**, *Atti della Accademia Nazionale dei Lincei, Rendiconti, Classe di Scienza Fisiche, Matematiche e Naturali*, Ser. VIII, **70** (1982) 256–264.
45. J. C. Alexander & S. S. Antman, **The ambiguous twist of Love**, *Quarterly of Applied Mathematics* **40** (1982) 83–92. DOI: 10.1090/qam/652052.
46. Review of *Introduction to Partial Differential Equations and Hilbert Space Methods* by K. E. Gustafson, *SIAM Review* **24** (1982) 237–238. DOI: 10.1137/1025091.
47. J. C. Alexander & S. S. Antman, **Global behavior of solutions of nonlinear equations depending on infinite-dimensional parameters**, *Indiana University Mathematics Journal* **32** (1983) 39–62. DOI: 10.1512/iumj.1983.32.32004.
48. S. S. Antman & P. Wolfe, **Multiple equilibria of elastic strings under central forces: Highly singular nonlinear boundary value problems of the Bernoulli**, *Journal of Differential Equations* **47** (1983) 180–213. DOI: 10.1016/0022-0396(83)90033-5.
49. J. C. Alexander, S. S. Antman, & S.-T. Deng, **Nonlinear eigenvalue problems for the whirling of heavy elastic strings, II: New methods of global bifurcation theory**, *Proceedings of the Royal Society of Edinburgh* **93A** (1983) 197–227. DOI: 10.1017/S0308210500015924.
50. **Regular and singular problems for large elastic deformations of tubes, wedges, and cylinders**, *Archive for Rational Mechanics and Analysis* **83** (1983) 1–52. DOI: 10.1007/BF00281086; **Corrigenda**, *ibid.* **95** (1986) 391–393. DOI: 10.1007/BF00276843.
51. Review of *The Tragicomical History of Thermodynamics 1822–1854*, by C. Truesdell, *American Mathematical Monthly* **90** (1983) 343–346. DOI: 10.2307/2975799.
52. Review of *An Introduction to Continuum Mechanics*, by M. E. Gurtin, *SIAM Review* **25** (1983) 410–411. DOI: 10.1137/1025091.
53. **Coercivity conditions in nonlinear elasticity**, in *Systems of Nonlinear Partial Differential Equations*, edited by J. M. Ball, Reidel, Dordrecht, 1983, pp. 289–297.
54. Review of *Applications of Centre Manifold Theory* by J. Carr, *Theory and Applications of Hopf Bifurcation* by B. D. Hassard, N. D. Kazarnoff, & Y.-H. Wan, and *Elementary Stability and Bifurcation Theory* by G. Iooss & D. D. Joseph, *Bulletin of the American Mathematical Society*, (New Series) **9** (1983) 241–247. DOI: 10.1090/S0273-0979-1983-15170-4.

55. **The influence of elasticity on analysis: Modern developments**, *Bulletin of the American Mathematical Society*, (New Series) **9** (1983) 267–291, DOI: 10.1090/S0273-0979-1983-15185-6; reprinted in *Nonlinear and Global Analysis*, edited by F. E. Browder, *Bulletin Reprint Series*, American Mathematical Society, Providence, 1993, pp. 299–323.
56. S. S. Antman & Guo Zhong-heng, **Large shearing oscillations of incompressible nonlinearly elastic bodies**, *Journal of Elasticity* **14** (1984) 249–262. DOI: 10.1007/BF00041137.
57. **Large lateral buckling of nonlinearly elastic beams**, *Archive for Rational Mechanics and Analysis*, **84** (1984) 293–305 (Special issue in honor of J. L. Ericksen), DOI: 10.1007/BF00250585; reprinted in *The Breadth and Depth of Continuum Mechanics*, edited by C. M. Dafermos, D. D. Joseph, & F. M. Leslie, Springer-Verlag, Berlin, 1986, pp. 233–245.
58. **Geometrical and analytical questions in nonlinear elasticity**, in *Seminar on Partial Differential Equations*, edited by S.-S. Chern, Springer-Verlag, New York, 1984, pp. 1–30.
59. R. C. Gauss & S. S. Antman, **Large thermal buckling of nonuniform beams and plates**, *International Journal of Solids and Structures* **20** (1984) 979–1000. DOI: 10.1016/0020-7683(84)90085-4.
60. S. S. Antman & M. C. Calderer, **Asymptotic shapes of inflated non-circular elastic rings**, *Mathematical Proceedings of the Cambridge Philosophical Society* **97** (1985) 357–379. DOI: 10.1017/S0305004100062903. **Corrigendum**, *ibid.* **101** (1987) 383. DOI: 10.1017/S0305004100066743
61. S. S. Antman & M. C. Calderer, **Asymptotic shapes of inflated spheroidal elastic shells**, *Mathematical Proceedings of the Cambridge Philosophical Society* **97** (1985) 541–549. DOI: 10.1017/S030500410006312X.
62. **Bifurcation problems associated with nonlinear wave propagation**, in *Ordinary and Partial Differential Equations, Proceedings of the Eighth Dundee Conference*, edited by B. D. Sleeman & R. J. Jarvis, *Springer Lecture Notes in Mathematics* **1151**, Springer-Verlag, Berlin, 1985, pp. 25–34.
63. K.-G. Shih & S. S. Antman, **Qualitative properties of large buckled states of spherical shells**, *Archive for Rational Mechanics and Analysis* (Special issue in honor of J. Serrin) **93** (1986) 357–384, DOI: 10.1007/BF00280513; reprinted in [82], 209–236.

64. R. C. Rogers & S. S. Antman, **Steady-state problems of nonlinear electro-magneto-thermo-elasticity**, *Archive for Rational Mechanics and Analysis* (Special issue in honor of W. Noll) **95** (1986) 279–323, DOI: 10.1007/BF00276839; reprinted in *Analysis and Thermomechanics*, edited by B. D. Coleman, M. Feinberg, & J. Serrin, Springer-Verlag, Berlin, 1987, pp. 479–523.
65. Review of *A Convergence of Lives, Sofia Kovalevskaia: Scientist, Writer, Revolutionary* by A. Hibner Koblitz, *American Mathematical Monthly* **93** (1986) 139–144.
66. Review of *Rational Thermodynamics, Second Edition* by C. Truesdell, *Foundations of Physics* **16** (1986) 847–849. DOI: 10.1007/BF00735386.
67. Review of *Local Bifurcation and Symmetry* by A. Vanderbauwhede, *SIAM Review* **28** (1986) 93–94. DOI: 10.1137/1025091.
68. Review of *Mathematical Theory of Non-Linear Elasticity*, by A. Hanyga, *American Scientist* **74** (1986) 438–439.
69. S. S. Antman & M. Reeken, **The drawing and whirling of strings: Singular global multiparameter bifurcation problems**, *SIAM Journal of Mathematical Analysis* **18** (1987) 337–365. DOI: 10.1137/1025091.
70. S. S. Antman & R. Malek-Madani, **Waves in nonlinearly viscoelastic media**, in *Nonstrictly Hyperbolic Conservation Laws, Contemporary Mathematics, Vol. 60*, edited by B. L. Keyfitz & H. C. Kranzer, American Mathematical Society, Providence, 1987, pp. 1–10.
71. S. S. Antman, J. L. Ericksen, D. Kinderlehrer, & I. Müller, editors, **Metastability and Incompletely Posed Problems**, I. M. A. Volumes in Mathematics and its Applications, Vol. 3, Springer-Verlag, New York, 1987.
72. S. S. Antman & R. Malek-Madani, **Dissipative mechanisms**, in [71] pp. 1–16.
73. S. S. Antman & P. V. Negrón-Marrero, **The remarkable nature of radially symmetric equilibrium states of aeolotropic nonlinearly elastic bodies**, *Journal of Elasticity* **18** (1987) 131–164. DOI: 10.1007/BF00127554.
74. S. S. Antman & C. L. Adler, **Design of material properties that yield a prescribed global buckling response**, *Journal of Applied Mechanics* **54** (1987) 263–268. DOI: 10.1115/1.3173005.

75. H. T. Savage, C. L. Adler, & S. S. Antman, **Bifurcations in magneto-elastic amorphous material**, in *IUTAM Symposium on Electromagnetomechanical Interactions in Deformable Solids and Structures*, edited by Y. Yamamoto & K. Miya, North Holland, Amsterdam, 1987, pp. 375–380.
76. Review of *Weighted Energy Methods in Fluid Dynamics and Elasticity*, by G. P. Galdi & S. Rionero, *SIAM Review* **29** (1987) 639–641. DOI: 10.1137/1025091.
77. **Damping in nonlinear solid mechanics**, in *Dynamical Systems Approaches to Nonlinear Problems in Systems and Circuits*, edited by F. M. A. Salam & M. L. Levi, SIAM, Philadelphia, 1988, pp. 60–72.
78. S. S. Antman & R. Malek-Madani, **Travelling waves in nonlinearly viscoelastic media and shock structure in elastic media**, *Quarterly of Applied Mathematics* **46** (1988) 77–93. DOI: 10.1090/qam/934683.
79. **The paradoxical asymptotic status of massless springs**, *SIAM Journal on Applied Mathematics* **48** (1988) 1319–1334. DOI: 10.1137/0148081.
80. **A zero-dimensional shock**, *Quarterly of Applied Mathematics* **46** (1988) 569–581. DOI: 10.1090/qam/963591.
81. S. S. Antman & W. G. Szymczak, **Nonlinear elastoplastic waves**, in *Current Problems in Hyperbolic Systems: Riemann Problems and Computation*, *Contemporary Mathematics* **100**, edited by W. B. Lindquist, American Mathematical Society, Providence, 1989, pp. 27–54. DOI: 10.1090/conm/100.
82. S. S. Antman, H. Brezis, B. D. Coleman, M. Feinberg, J. Nohel, & W. Ziemer, editors, *Analysis and Continuum Mechanics*, Springer-Verlag, Berlin, 1989.
83. **Nonlinear problems of geometrically exact shell theories**, in *Analytic and Computational Models for Shells*, edited by A. K. Noor, T. Belytschko, & J. C. Simo, American Society of Mechanical Engineers, New York, 1989, pp. 109–131.
84. P. V. Negrón-Marrero & S. S. Antman, **Singular global buckling problems for anisotropic plates**, *Proceedings of the Royal Society of London* **427** (1990) 95–137. DOI: 10.1098/rspa.1990.0005.
85. S. S. Antman & J. F. Pierce, **The intricate global structure of buckled states of compressible columns**, *SIAM Journal on Applied Mathematics* **50** (1990) 395–419. DOI: 10.1137/1025091.

86. **Global properties of buckled states of plates that can suffer thickness changes**, *Archive for Rational Mechanics and Analysis* (Special issue in honor of B. D. Coleman) **110** (1990) 103–117, DOI: 10.1007/BF00873493; reprinted in *Mechanics and Thermodynamics of Continua*, edited by H. Markovitz, V. J. Mizel, & D. R. Owen, Springer-Verlag, Berlin, 1991, pp. 435–449.
87. M. Lanza de Cristoforis & S. S. Antman, **Cavitational flow past a nonlinearly elastic panel**, *Indiana University Mathematics Journal* **39** (1990) 383–412. DOI: 10.1512/iumj.1990.39.39021.
88. M. Wun-Fogle, H. T. Savage, S. S. Antman, & L. T. Kabacoff, **The effect of longitudinal stress and torsional strain on the magnetization of amorphous magnetoelastic wires**, *Anales de Fisica, Serie B*, **86** (1990) 277–283.
89. Review of *Dynamics of Multibody Systems*, by R. E. Roberson & R. Schwertassek, *SIAM Review* **32** (1990) 486–487. DOI: 10.1137/1025091.
90. **Editorial**, *Archive for Rational Mechanics and Analysis*, **110** (1990) i–ii. DOI: 10.1007/BF00393275.
91. M. Lanza de Cristoforis & S. S. Antman, **The large deformation of nonlinearly elastic tubes in two-dimensional flows**, *SIAM Journal of Mathematical Analysis* **22** (1991) 1193–1221. DOI: 10.1137/1025091.
92. S. S. Antman & R. S. Marlow, **Material constraints, Lagrange multipliers, and compatibility. Applications to rod and shell theories**, *Archive for Rational Mechanics and Analysis*, **116** (1991) 257–299. DOI: 10.1007/BF00375123.
93. M. Lanza de Cristoforis & S. S. Antman, **The large axisymmetric deformation of a shell in a perfect flow**, *Annales de l’Institut Henri Poincaré, Analyse non linéaire* **9** (1992) 433–464. DOI: 10.1016/S0294-1449(16)30234-7.
94. S. S. Antman & R. S. Marlow, **Transcritical buckling of columns**, *Zeitschrift für angewandte Mathematik und Physik* **43** (1992) 7–27, DOI: 10.1007/BF00944738. Correction, *ibid.* **45** (1994) 839. DOI: 10.1007/BF00942757.
95. Review of *Mechanics: From Newton’s Laws to Deterministic Chaos*, by F. Scheck, *SIAM Review* **34** (1992) 135–137. DOI: 10.1137/1034022.
96. S. S. Antman & M. Lanza de Cristoforis, **Nonlinear, nonlocal problems of fluid-solid interactions**, in *Degenerate Diffusion*, edited by W.-M. Ni, L. A. Peletier, & J. L. Vazquez, IMA Volumes in Mathematics and its Applications, Springer-Verlag, New York, 1993, pp. 1–18.

97. S. S. Antman & R. S. Marlow, **New phenomena in the buckling of arches described by refined models**, *International Journal of Solids and Structures* **30** (1993) 2213–2241. DOI: 10.1137/1025091.
98. **Large motions of light viscoelastic rods**, *Proceedings of the Second International Congress on Nonlinear Mechanics, Beijing*, edited by W.-Z. Chien, Peking University Press, 1993, pp. 1–8.
99. M. Lanza de Cristoforis & S. S. Antman, **Perfect flow past a nonlinearly elastic panel**, in *Nonlinear Partial Differential Equations and their Applications, Collège de France Seminar*, Vol. XII, edited by H. Brezis & J.-L. Lions, Pitman Research Notes in Mathematics, Vol. 302, Longman, London, 1994, pp. 134–157.
100. S. S. Antman & T. I. Seidman, **Large shearing motions of nonlinearly viscoelastic slabs**, *Bulletin of the Technical University of Istanbul* (Special issue in honor of E. S. Suhubi) **47** (1994) 41–56.
101. S. S. Antman & M. M. Shvartsman, **The shrink-fit problem for aeolotropic nonlinearly elastic bodies**, *Journal of Elasticity* **37** (1995) 157–166. DOI: 10.1007/BF00040943.
102. ***Nonlinear Problems of Elasticity***, Applied Mathematical Sciences **108**, xviii +750 pages, Springer-Verlag, New York, 1995.
103. M. M. Shvartsman & S. S. Antman, **Coexistent phases in nonlinear thermoelasticity: radially symmetric equilibrium states of aeolotropic bodies**, *Journal of Elasticity* **41** (1995) 107–136. DOI: 10.1007/BF00042510.
104. **Continuation methods in nonlinear elasticity**, *World Congress of Nonlinear Analysts '92*, edited by V. Lakshmikantham, De Gruyter, 1996, pp. 827–838.
105. S. S. Antman & T. I. Seidman, **Quasilinear hyperbolic-parabolic equations of one-dimensional viscoelasticity**, *Journal of Differential Equations* **124** (1996) 132–185. DOI: 10.1006/jdeq.1996.005.
106. S. S. Antman & F. Klaus, **The shearing of nonlinearly viscoplastic slabs**, *Nonlinear Problems in Applied Mathematics* (in honor of I. Stakgold), edited by T. Angell, L. P. Cook, R. Kleinman, and W. E. Olmstead, SIAM, 1996, pp. 20–29.
107. **Dynamical problems for geometrically exact theories of nonlinearly viscoelastic rods**, *Journal of Nonlinear Science* **6** (1996) 1–18. Updated revision reprinted in *Mechanics: From Theory to Computation, Essays in Honor of Juan-Carlos Simo*, edited by J. E. Marsden and S. Wiggins, Springer-Verlag, 2000, pp. 1–18.

108. **Viscosity in solids**, *Contemporary Research in the Mechanics and Mathematics of Materials*, edited by R. C. Batra and M. F. Beatty, International Center for Numerical Methods in Engineering, 1996, pp. 69–78.
109. **Extensions of monotone mappings**, *Comptes Rendus de l'Académie de Science, Paris, Série I*, **323** (1996) 235–239.
110. S. S. Antman & M. Lanza de Cristoforis, **Peculiar instabilities due to the clamping of shearable rods**, *International Journal of Nonlinear Mechanics* **32** (1997) 31–54. DOI: 10.1016/S0020-7462(96)00008-X.
111. **Convergence properties of hierarchies of dynamical theories of rods and shells**, *Zeitschrift für Angewandte Mathematik und Physik* **48** (1997) 874–884. DOI: 10.1007/s000330050070.
112. **Von Kármán's equations for plates**, *Encyclopedia of Mathematics Supplement*, Volume I, edited by M. Hazewinkel, Kluwer, Dordrecht, 1997, 480–481.
113. S. S. Antman & L. S. Srubshchik, **The eversion of nonlinearly elastic shells**, in *Shells, Mathematical Modelling and Scientific Computation*, edited by M. Bernadou, P. G. Ciarlet, and J. M. Viaño, Universidade de Santiago de Compostela, 1997, pp. 21–24.
114. S. S. Antman, R. S. Marlow, & C. P. Vlahacos, **The complicated dynamics of heavy rigid bodies attached to light deformable rods**, *Quarterly of Applied Mathematics* **56** (1998) 431–460. DOI: 10.1090/qam/1637036 .
115. **The simple pendulum is not so simple**, *SIAM Review* **40** (1998) 927–930. DOI: 10.1137/1025091.
116. S. S. Antman & L. S. Srubshchik, **Asymptotic analysis of the eversion of nonlinearly elastic shells**, *Journal of Elasticity* **50** (1998) 129–179, DOI: 10.1023/A:1007449301977; **Corrigendum**, *ibid.* **52** (1999) 293–294. DOI: 10.1023/A:1007558123994.
117. **Physically unacceptable viscous stresses**. *Zeitschrift für Angewandte Mathematik und Physik* **49** (1998) 980–988. DOI: 10.1007/s000330050134.
118. **The crucial role of viscous damping in solid mechanics**, *Proceedings of the Third International Congress on Nonlinear Mechanics, Shanghai*, edited by W.-Z. Chien, Shanghai University Press, 1998, pp. 1–6.

119. D. A. Lott-Crumpler, S. S. Antman, & W. G. Szymczak, **The quasilinear wave equation governing antiplane axisymmetric shear. A numerical approach.** *Proceedings of the Fourth International Conference on Mathematical and Numerical Aspects of Wave Propagation*, SIAM, 1998, 446–448.
120. **Synthesis of nonlinear constitutive functions. Applications to the electromagnetic control of snapping.** *Journal of Applied Mechanics* **66** (1999) 280–283. DOI: 10.1115/1.2789164
121. S. S. Antman & F. Schuricht, **Incompressibility in rod and shell theories**, *Mathematical Modelling and Numerical Analysis* **33** (1999) 289–304. DOI: 10.1017/S0308210500011707.
122. Review of *Jacques Hadamard: A Universal Mathematician*, by V. G. Maz'ya and T. O. Shaposhnikova, *SIAM Review* **41** (1999) 826–828.
123. **Feedback linearization and semilinearization for smart elastic structures**, *Journal of Elasticity* **59** (2000) 115–130, DOI: 10.1023/A:1011053230480; reprinted in *Advances in Continuum Mechanics and Thermodynamics of Material Behavior*, edited by D. E. Carlson & Y.-C. Chen, Kluwer, 2000.
124. S. S. Antman & H. Koch, **Self-sustained oscillations of nonlinearly viscoelastic layers**, *SIAM Journal of Applied Mathematics* **60** (2000) 1357–1387. DOI: 10.1137/1025091.
125. **The many roles of viscosity in solid mechanics.** *Multifield Problems*, edited by A.-M. Sändig, W. Schiehlen, & W. L. Wendland, Springer-Verlag, 2000, 1–10.
126. **Breathing oscillations of rotating nonlinearly elastic and viscoelastic rings.** *Advances in the Mechanics of Plates and Shells* (in honor of A. Libai), edited by D. Durban, D. Givoli, & J. G. Simmonds, Kluwer, 2001, pp. 1–16.
127. **Nonlinear continuum physics**, *Mathematics Unlimited: 2001 and Beyond*, edited by B. Engquist & W. Schmidt, Springer-Verlag, 2001, pp. 1–21.
128. T. I. Seidman & S. S. Antman, **Optimal control of a nonlinearly viscoelastic rod.** *Control of Nonlinear Distributed Parameter Systems*, edited by G. Chen, I. Lasiecka, & J. Zhou, Marcel Dekker, 2001, 273–283.
129. H. Koch & S. S. Antman, **Stability and Hopf bifurcation for fully nonlinear parabolic-hyperbolic equations**, *SIAM Journal of Mathematical Analysis* **32** (2001) 360–384. DOI: 10.1137/1025091.

130. J. P. Wilber & S. S. Antman, **Global attractors for a degenerate partial differential equation from nonlinear viscoelasticity**, *Physica D* **150** (2001) 179–208.
131. S. S. Antman & T. C. T. Ting, **Anisotropy consistent with spherical symmetry in continuum mechanics**, *Journal of Elasticity* **62** (2001) 85–93. DOI:10.1023/A:1010965213263
132. D. A. Lott, S. S. Antman, & W. G. Szymczak, **The quasilinear wave equation for antiplane shearing of nonlinearly elastic bodies**, *Journal of Computational Physics* **171** (2001) 201–226. DOI: 10.1006/jcph.2001.6783.
133. S. S. Antman & L. S. Srubshchik, **Asymptotic analysis of the eversion of nonlinearly elastic shells, II. Incompressible shells**. *Journal of Elasticity* **63** (2001) 171–219. DOI: 10.1023/A:1014409219644.
134. Review of *Continuum Mechanics and Theory of Materials*, by P. Haupt, *SIAM Review* **44** (2002) 135–136.
135. S.-C. Yip, S. S. Antman, & M. Wiegner, **The motion of a particle on a light viscoelastic bar: Asymptotic analysis of the quasilinear parabolic-hyperbolic equation**, *Journal de Mathématiques Pures et Appliquées* **81** (2002) 283–309. DOI: 10.1016/S0021-7824(01)01227-2.
136. S. S. Antman & F. Schuricht, **The critical role of the base curve for the qualitative behavior of shearable rods**, *Mathematics and Mechanics of Solids* **8** (2003) 75–102. DOI: 10.1177/108128603029766.
137. **Invariant dissipative mechanisms for the spatial motion of rods suggested by artificial viscosity**, *Journal of Elasticity* (Special issue in memory of C. Truesdell) **70** (2003) 55–64. DOI: 10.1023/B:ELAS.0000005549.19254.17.
138. **Regularity properties of planar motions of incompressible rods**, *Discrete and Continuous Dynamical Systems B* (Special issue in honor of D. G. Schaeffer) **3** (2003) 481–494. DOI: 10.3934/dcdsb.2003.3.481.
139. T. I. Seidman & S. S. Antman, **Optimal control of the spatial motion of a viscoelastic rod**, *Dynamics of Continuous, Discrete, and Impulsive Systems* **10** (2003) 679–691.
140. Preface to the Third Edition of *Non-Linear Field Theories of Mechanics*, Springer-Verlag, 2004, xiii–xxiii.
141. Editor of *The Non-Linear Field Theories of Mechanics*, Third Edition, by C. Truesdell & W. Noll, Springer-Verlag, 2004.

142. S. S. Antman & L. S. Srubshchik, **The upper critical pressure for nonlinearly elastic shells**, *Izvestia Vysshikh Uchebnykh Zavedenii Severo-Kavkazskii Region. Matematika i Mekhanika Sploshnoi Sredy* (Special issue in honor of V. I. Yudovich) (2004) 29–33.
143. S. S. Antman & G. M. Crosswhite, **Planar travelling waves in incompressible rods**, *Methods and Applications of Analysis* (Special issue in honor of G. Papanicolaou) **11** (2004) 431–446. DOI: 10.4310/MAA.2004.v11.n3.a13.
144. S. S. Antman & T. I. Seidman, **Parabolic-hyperbolic systems governing the spatial motion of nonlinearly viscoelastic rods**, *Archive for Rational Mechanics and Analysis* **175** (2005) 85–150. DOI: 10.1007/s00205-004-0341-6.
145. *Nonlinear Problems of Elasticity*, Second Edition, xviii + 832 pages, Springer-Verlag, 2005.
146. S. S. Antman & M. Schagerl, **Slumping instabilities of nonlinearly elastic cylindrical membranes holding liquids and gases**, *International Journal of Nonlinear Mechanics* **40** (2005) 1112–1138. DOI: 10.1016/j.ijnonlinmec.20005.04.003.
147. **Theodore von Kármán**, in *A Panorama of Hungarian Mathematics in the Twentieth Century*, Vol. I, edited by J. Horváth, Bolyai Society Mathematical Studies 14, Springer-Verlag, 2006, 373–382.
148. **A priori bounds on spatial motions of incompressible nonlinearly elastic rods**, *Journal of Hyperbolic Differential Equations* (Special issue in honor of T.-P. Liu) **3** (2006) 481–504. DOI: 10.1142/S0219891606000872.
149. G. Crosswhite & S. S. Antman, **A new spin on problems of Newton, the Bernoullis, and Abel**, *Rendiconti, Accademia Nazionale delle Scienze detta dei XL, Memorie di Matematica e Applicazioni* (Special issue in memory of G. Fichera) Serie V, 124°, **28** (2006) fasc. 1, 7–28.
150. S. S. Antman & J. P. Wilber, **The asymptotic problem for the spring-like motion of a heavy piston in a viscous gas**, *Quarterly of Applied Mathematics* **65** (2007) 471–498. DOI: 10.1090/S0033-569X-07-01076-5.
151. S. S. Antman & J.-G. Liu, **Basic themes and pretty problems of nonlinear solid mechanics**, *Milan Journal of Mathematics* **75** (2007) 135–176. DOI: 10.1007/s00032-007-0068-6.

152. W. Lacarbonara & S. S. Antman, **Parametric resonances of nonlinearly viscoelastic rings subject to a pulsating pressure**, *Proceeding of the 21st ASME 2007 Biennial Conference on Mechanical Vibrations and Noise*, Paper DETC2007-35245, 2007, 10 pp.
153. W. Lacarbonara & S. S. Antman, **What is a parametric excitation in structural dynamics?** *Proceedings of ENOC-2008*, Saint Petersburg, Russia, 2008, 9 pp.
154. D. Bourne & S. S. Antman, **A non-self-adjoint quadratic eigenvalue problem describing a fluid-solid interaction. Part I: formulation, analysis, and computations**, *Communications in Pure and Applied Analysis* (Special issue in honor of P. G. Ciarlet) **8** (2009) 123–142.
155. S. S. Antman & W. Lacarbonara, **Forced radial motions of nonlinearly viscoelastic shells**, *Journal of Elasticity* **96** (2009) 155–190. DOI: 10.1007/s10659-009-9203-7.
156. S. S. Antman & D. Bourne, **Rotational symmetry vs. axisymmetry in shell theory**, *International Journal of Engineering Science* (Special issue in honor of K. Rajagopal) **48** (2010) 991–1005. DOI: 10.1016/j.ijengsci.2010.09.09.
157. **The shuddering pendulum**, *Journal of Nonlinear Science* **21** (2011) 595–638. DOI: 10.1007/s00332-011-9095-0.
158. W. Lacarbonara & S. S. Antman, **Parametric instabilities of the radial motions of nonlinearly viscoelastic shells under pulsating pressures**, *International Journal of Nonlinear Mechanics* **47** (2012) 461–472. DOI: 10.1016/j.ijnonlinmec.2011.09.17.
159. S. S. Antman & S. Ulusoy, **The asymptotics of heavily burdened viscoelastic rods** (Special issue in honor of C. M. Dafermos), *Quarterly of Applied Mathematics* **70** (2012) 437–467. DOI: 10.1090/S0033-569X-2012-01325-0.
160. W. Lacarbonara, A. Arena, & S. S. Antman, **Nonlinear flexural vibrations of unshearable elastic rings**, *Proc ASME 2013 International Design Engineering Technical Conferences*, IDETC/CIE 2013, 9 pp.
161. W. Lacarbonara, A. Arena, & S. S. Antman, **Nonlinear vibration of magnetically levitated rotating rings**, *Proc ASME 2014 International Design Engineering Technical Conferences*, IDETC/CIE 2014, 21 pp.

162. D. Bourne & S. S. Antman, **The Taylor-Couette problem for flow in a deformable cylinder**, *Journal of Dynamics and Differential Equations* **27** (2015) 457–480. (Special volume in memory of Klaus Kirchgässner) DOI: 10.1007/s10884-013-9344-z.
163. W. Lacarbonara, A. Arena, & S.S. Antman, **Flexural vibrations of nonlinearly elastic circular rings**, *Meccanica* **50** (2015) 689–705. DOI: 10.1007/s11012-014-0038-3.
164. S.S. Antman & S. Ulusoy, **Global attractors for quasilinear parabolic-hyperbolic equations governing longitudinal motions of nonlinearly viscoelastic rods**, *Physica D* **291** (2015) 31–44. DOI: 10.1016/j.physd.2014.10.004.
165. S.S. Antman & S. Ulusoy, **Asymptotics and attractors for quasilinear parabolic-hyperbolic systems governing the motions of heavily burdened deformable bodies**, *Vietnam Journal of Mathematics* (Special volume dedicated to Eberhard Zeidler), **44** (2016) 133–152. DOI: 10.1007/s10013-015-0172-9.
166. A.B. Stepanov & S.S. Antman, **Radially symmetric steady states of nonlinearly elastic plates and shells**, *Journal of Elasticity* **124** (2016) 243–278. DOI: 10.1007/s10659-015-9567-9.
167. S. S. Antman & S. Ulusoy, **Blowup of solutions for the planar motions of rotating nonlinearly elastic rods**, *International Journal of Nonlinear Mechanics* (Special volume dedicated to G. Rega and F. Vestroni), **94** (2017) 28–35. DOI: 10.1016/j.ijnonlinmec.2016.09.006.
168. A. B. Stepanov & S. S. Antman, **Radially symmetric motions of nonlinearly viscoelastic bodies under live loads**, *Archive for Rational Mechanics and Analysis* **226** (2017) 1209–1247. DOI: 10.1007/s00205-017-1153-9.
169. **Rotationally symmetric motions and their blowup for incompressible nonlinearly elastic and viscoelastic annuli**, *Journal of Elasticity*, **135** (2019) 73–89. DOI: 10.1007/s10659-019-09735-x.