

79. Is the public hungry for math?, D. N. Arnold, *Notices of the American Mathematical Society*, 55 (2008), p. 1069.
78. Geometric decompositions and local bases for spaces of finite element differential forms, D. N. Arnold, R. S. Falk and R. Winther, *Computer Methods in Applied Mechanics and Engineering* (2008), submitted.
77. Finite element differential forms, D. N. Arnold, R. S. Falk and R. Winther, *Proceedings in Applied Mathematics and Mechanics* (2008), to appear.
76. Finite elements for symmetric tensors in three dimensions, D. N. Arnold, G. Awanou and R. Winther, *Mathematics of Computation*, 77 (2008), pp. 1229–1251.
75. Mixed finite element methods for linear elasticity with weakly imposed symmetry, D. N. Arnold, R. S. Falk and R. Winther, *Mathematics of Computation*, 76 (2007), pp. 1699–1723.
74. Boundary conditions for the Einstein-Christoffel formulation of Einstein's equations, D. N. Arnold and N. Tarfulea, *Electronic Journal of Differential Equations*, Conf. 15 (2007), pp. 11–27.
73. Locking-free Reissner-Mindlin elements without reduced integration, D. N. Arnold, F. Brezzi, R. S. Falk and D. Marini, *Computer Methods in Applied Mechanics and Engineering*, 196 (2007), pp. 3660–3671.
72. Finite element exterior calculus, homological techniques, and applications, D. N. Arnold, R. S. Falk and R. Winther, *Acta Numerica*, 15 (2006), pp. 1–155.
71. Differential complexes and stability of finite element methods. II. The elasticity complex, D. N. Arnold, R. S. Falk and R. Winther, in *Compatible Spatial Discretizations*, D. Arnold, P. Bochev, R. Lehoucq, R. Nicolaides and M. Shashkov, eds., IMA Volumes in Mathematics and its Applications 142, Springer-Verlag, New York–Heidelberg–Berlin, 2006, pp. 47–68.
70. Differential complexes and stability of finite element methods. I. The de Rham complex, D. N. Arnold, R. S. Falk and R. Winther, in *Compatible Spatial Discretizations*, D. Arnold, P. Bochev, R. Lehoucq, R. Nicolaides and M. Shashkov, eds., IMA Volumes in Mathematics and its Applications 142, Springer-Verlag, New York–Heidelberg–Berlin, 2006, pp. 23–46.
69. Complejos diferenciales y estabilidad numérica, D. N. Arnold, *La Gaceta de la Real Sociedad Matemática Española*, 8.2 (2005), pp. 335–360.
68. Rectangular mixed finite elements for elasticity, D. N. Arnold and G. Awanou, *Mathematical Models and Methods in Applied Sciences*, 15 (2005), pp. 1417–1429.
67. A family of discontinuous Galerkin finite elements for the Reissner-Mindlin plate, D. N. Arnold, F. Brezzi and D. Marini, *Journal of Scientific Computing*, 22 (2005), pp. 25–45.
66. Quadrilateral $H(\text{div})$ finite elements, D. N. Arnold, D. Boffi and R. S. Falk, *SIAM J. Numer. Anal.*, 42 (2005), pp. 2429–2451.
65. New first-order formulation for the Einstein equations, A. Alekseenko and D. N. Arnold, *Physical Review D*, 68 (2003), 064013, gr-qc/0210071.
64. Asymptotic estimates of hierarchical modeling, D. N. Arnold and A. L. Madureira, *Mathematical Models and Methods in Applied Sciences*, 13 (2003), pp. 1325–1350.
63. Mixed finite elements for elasticity in the stress-displacement formulation, D. N. Arnold and R. Winther, in *Current Trends in Scientific Computing*, Z. Chen, R. Glowinski and K. Li, eds., *Contemporary Mathematics*, 329, American Mathematical Society, 2003, pp. 33–42.
62. Nonconforming mixed elements for elasticity, D. N. Arnold and R. Winther, *Mathematical Models and Methods in Applied Sciences*, 13 (2003), pp. 295–307.
61. Differential complexes and numerical stability, D. N. Arnold, in *Proceedings of the International Congress of Mathematicians, Vol. I: Plenary Lectures and Ceremonies*, L. Tatsien, ed., Higher Education Press, Beijing, 2002, pp. 137–157.

60. Remarks on Quadrilateral Reissner–Mindlin Plate Elements, D. N. Arnold, D. Boffi and R. S. Falk, in *WCCM V - Fifth World Congress on Computational Mechanics*, H. A. Mang, F. G. Rammerstorfer and J. Eberhardsteiner, eds., 2002.
59. On the range of applicability of the Reissner–Mindlin and Kirchhoff–Love plate bending models, D. N. Arnold, A. Madureira and S. Zhang, *Journal of Elasticity*, 67 (2002), pp. 171–185.
58. Unified analysis of discontinuous Galerkin methods for elliptic problems, D. N. Arnold, F. Brezzi, B. Cockburn and D. Marini, *SIAM J. Numer. Anal.*, 39 (2002), pp. 1749–1779.
57. Mixed finite elements for elasticity, D. N. Arnold and R. Winther, *Numer. Math.*, 92 (2002), pp. 401–419.
56. Approximation by quadrilateral finite elements, D. N. Arnold, D. Boffi and R. S. Falk, *Math. Comp.*, 71 (2002), pp. 909–922.
55. Finite element approximation on quadrilateral meshes, D. N. Arnold, D. Boffi, R. S. Falk and L. Gastaldi, *Comm. in Num. Meth. Engrg.*, 17 (2001), pp. 805–812.
54. Numerical problems in general relativity, D. N. Arnold, in *Numerical Mathematics and Advanced Applications*, P. Neittaanmäki, T. Tiihonen and P. Tarvainen, eds., World Scientific, 2000, pp. 3–15.
53. Discontinuous Galerkin methods for elliptic problems, D. N. Arnold, F. Brezzi, B. Cockburn and D. Marini, in *Discontinuous Galerkin Methods: Theory, Computation and Applications*, B. Cockburn, G. Karniadakis and C. W. Shu, eds., Lecture Notes in Computational Science and Engineering 11, Springer-Verlag, New York–Heidelberg–Berlin, 2000, pp. 89–101.
52. Multigrid in $H(\text{div})$ and $H(\text{curl})$, D. N. Arnold, R. S. Falk and R. Winther, *Numer. Math.*, 85 (2000), pp. 197–218.
51. Locally adapted tetrahedral meshes using bisection, D. N. Arnold, A. Mukherjee and L. Pouly, *SIAM Journal on Scientific Computing*, 22 (2000), pp. 431–448.
50. Tetrahedral bisection and adaptive finite elements, D. N. Arnold and A. Mukherjee, in *Grid Generation and Adaptive Algorithms*, M. Bern, J. E. Flaherty and M. Luskin, eds., IMA Volumes in Mathematics and its Applications 113, Springer-Verlag, New York–Heidelberg–Berlin, 1999, pp. 29–42.
49. Adaptive finite elements and colliding black holes, D. N. Arnold, A. Mukherjee and L. Pouly, in *Numerical Analysis 1997*, D. F. Griffiths, D. J. Higham and G. A. Watson, eds., Addison Wesley Longman, Essex, 1998, pp. 1–15.
48. Multigrid preconditioning in $H(\text{div})$ on non-convex polygons, D. N. Arnold, R. S. Falk and R. Winther, *Computational and Applied Mathematics*, 17 (1998), pp. 307–319.
47. Dimensional reduction for plates based on mixed variational principles, S. M. Alessandrini, D. N. Arnold, R. S. Falk and A. Madureira, in *Shells (Santiago de Compostela 1997)*, Cursos Congr. Univ. Santiago de Compostela, 105, Univ. Santiago de Compostela, Santiago de Compostela, 1997, pp. 25–28.
46. Preconditioning discrete approximations of the Reissner–Mindlin plate model, D. N. Arnold, R. S. Falk and R. Winther, in *Ninth International Conference on Domain Decomposition Methods* (Bergen, 1996), P. Bjørstad, M. Espedal and D. Keyes, eds., DDM.org, pp. 215–221.
45. Preconditioning in $H(\text{div})$ and applications, D. N. Arnold, R. S. Falk and R. Winther, in *Ninth International Conference on Domain Decomposition Methods* (Bergen, 1996), P. Bjørstad, M. Espedal and D. Keyes, eds., DDM.org, pp. 12–19.
44. Derivation and justification of plate models by variational methods, S. M. Alessandrini, D. N. Arnold, R. S. Falk and A. Madureira, in *Plates and Shells (Québec 1996)*, M. Fortin, ed., CRM Proc. & Lect. Notes, 21, Amer. Math. Soc., Providence, RI, 1999, pp. 1–20.
43. Computer-Aided Instruction, D. N. Arnold, article in Microsoft Encarta Encyclopedia, first published in 1997, currently available in online edition at <http://encarta.msn.com>.
42. Preconditioning discrete approximations of the Reissner–Mindlin plate model, D. N. Arnold, R. S. Falk and R. Winther, *Mathematical Modelling and Numerical Analysis*, 31 (1997), pp. 517–557.
41. Preconditioning in $H(\text{div})$ and applications, D. N. Arnold, R. S. Falk and R. Winther, *Math. Comp.*, 66 (1997), pp. 957–984.

40. Analysis of a linear-linear finite element for the Reissner-Mindlin plate model, D. N. Arnold and R. S. Falk, *Mathematical Models and Methods in Applied Sciences*, 7 (1997), pp. 217-238.
39. Interior estimates for a low order finite element method for the Reissner-Mindlin plate, D. N. Arnold and X. Liu, *Advances in Computational Mathematics*, 7 (1997), pp. 337-360.
38. The partial selective reduced integration method and applications to shell problems, D. N. Arnold and F. Brezzi, *Comput. & Structures*, 64 (1997), pp. 879-880.
37. Locking free finite element methods for shells, D. N. Arnold and F. Brezzi, *Math. Comp.*, 66 (1997), pp. 1-14.
36. Asymptotic analysis of the boundary layer for the Reissner-Mindlin plate model, D. N. Arnold and R. S. Falk, *SIAM J. Math. Anal.*, 27 (1996), pp. 486-514.
35. Local error estimates for finite element discretizations of the Stokes equations, D. N. Arnold and X. Liu, *Mathematical Modelling and Numerical Analysis*, 29 (1995), pp. 367-389.
34. On nonconforming linear-constant elements for some variants of the Stokes equations, D. N. Arnold, *Istit. Lombardo Accad. Sci. Lett. Rend. A*, 127 (1993), pp. 83-93.
33. Some new elements for the Reissner-Mindlin plate model, D. N. Arnold and F. Brezzi, in *Boundary Value Problems for Partial Differential Equations and Applications*, C. Baiocchi and J-L. Lions, eds., Masson, Paris, 1993, pp. 287-292.
32. Quadratic velocity/linear pressure Stokes elements, D. N. Arnold and J. Qin, in *Advances in Computer Methods for Partial Differential Equations-VII*, R. Vichnevetsky, D. Knight and G. Richter, eds., IMACS, 1992, pp. 28-34.
31. Innovative finite element methods for plates, D. N. Arnold, *Mat. Apl. Comput.*, 10 (1991), pp. 77-88.
30. Mixed finite element methods for elliptic problems, D. N. Arnold, *Comput. Methods Appl. Mech. Engrg.*, 82 (1990), pp. 281-300.
29. The boundary layer for the Reissner-Mindlin plate model, D. N. Arnold and R. S. Falk, *SIAM J. Math. Anal.*, 21 (1990), pp. 281-312.
28. Edge effects in the Reissner-Mindlin plate theory, D. N. Arnold and R. S. Falk, in *Analytical and Computational Models for Shells*, A. K. Noor, T. Belytschko and J. Simo, eds., American Society of Mechanical Engineers, New York, 1989, pp. 71-90.
27. Coercivity of the single layer heat potential, D. N. Arnold and P. Noon, *J. Comput. Math.*, 7 (1989), pp. 100-104.
26. A uniformly accurate finite element method for the Reissner-Mindlin plate, D. N. Arnold and R. S. Falk, *SIAM J. Numer. Anal.*, 26 (1989), pp. 1276-1290.
25. The delta-trigonometric method using the single-layer potential representation, R. S-C. Cheng and D. N. Arnold, *J. Integral Equations*, 1 (1988), pp. 517-547.
24. Regular inversion of the divergence operator with Dirichlet boundary conditions on a polygon, D. N. Arnold, L. R. Scott and M. Vogelius, *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4)*, 15 (1988), pp. 169-192.
23. A new mixed formulation for elasticity, D. N. Arnold and R. S. Falk, *Numer. Math.*, 53 (1988), pp. 13-30.
22. Boundary integral equations of the first kind for the heat equation, D. N. Arnold and P. Noon, in *Boundary Elements IX, Vol. 3*, C. A. Brebbia, W. L. Wendland and G. Kuhn, eds., Springer-Verlag, New York-Heidelberg-Berlin, 1987, pp. 213-230.
21. Well-posedness of the fundamental boundary value problems for constrained anisotropic elastic materials, D. N. Arnold and R. S. Falk, *Arch. Rational Mech. Anal.*, 98 (1987), pp. 143-165.
20. Continuous dependence on the elastic coefficients for a class of anisotropic materials, D. N. Arnold and R. S. Falk, *IMA Preprint 165*, 1985, 36 pages.
19. The convergence of spline collocation for strongly elliptic equations on curves, D. N. Arnold and W. L. Wendland, *Numer. Math.*, 47 (1985), pp. 317-341.

18. Mixed and nonconforming finite element methods: implementation, postprocessing and error estimates, D. N. Arnold and F. Brezzi, *Math. Modelling and Numer. Anal.*, 19(1985), pp. 7–32.
17. A stable finite element for the Stokes equations, D. N. Arnold, F. Brezzi and M. Fortin, *Calcolo*, 21 (1984), pp. 337–344.
16. A new mixed formulation for the numerical solution of elasticity problems, D. N. Arnold, in *Advances in Computer Methods for Partial Differential Equations–V*, R. Vichnevetsky and R. S. Stepleman, eds., IMACS, 1984, pp. 353–356.
15. The effect of the test functions on the convergence of spline projection methods for singular integral equations, D. N. Arnold, in *Numerical Solution of Singular Integral Equations*, A. Gerasoulis and R. Vichnevetsky, eds., 1984, pp. 1–4.
14. PEERS: A new mixed finite element for plane elasticity, D. N. Arnold, F. Brezzi and J. Douglas, *Japan J. Appl. Math.*, 1(1984), pp. 347–367.
13. A family of higher order mixed finite element methods for plane elasticity, D. N. Arnold, J. Douglas and C. Gupta, *Numer. Math.*, 45(1984), pp. 1–22.
12. On the asymptotic convergence of spline collocation methods for partial differential equations, D. N. Arnold and J. Saranen, *SIAM J. Numer. Anal.*, 21(1984), pp. 459–472.
11. Finite element methods: principles for their selection, D. N. Arnold, I. Babuška and J. Osborn, *Comput. Methods Appl. Mech. Engrg.*, 45(1984), pp. 57–96.
10. On the asymptotic convergence of collocation methods, D. N. Arnold and W. L. Wendland, *Math. Comp.*, 41(1983), pp. 349–381.
9. A spline-trigonometric Galerkin method and an exponentially convergent boundary integral method, D. N. Arnold, *Math. Comp.*, 41(1983), pp. 383–396.
8. Selection of finite element methods, D. N. Arnold, I. Babuška and J. Osborn, in *Hybrid and Mixed Finite Element Methods*, S. N. Atluri, R. H. Gallagher and O. C. Zienkiewicz, eds., John Wiley, 1983, pp. 433–451.
7. Collocation versus Galerkin procedures for boundary integral methods, D. N. Arnold and W. L. Wendland, in *Boundary Element Methods in Engineering*, C. A. Brebbia, ed., Springer Verlag, 1982, pp. 18–33.
6. An interior penalty finite element method with discontinuous elements, D. N. Arnold, *SIAM J. Numer. Anal.*, 19(1982), pp. 742–760.
5. A superconvergent finite element method for the Korteweg-deVries equation, D. N. Arnold and R. Winther, *Math. Comp.*, 38(1982), pp. 23–36.
4. Discretization by finite elements of a model parameter dependent problem, D. N. Arnold, *Numer. Math.*, 37(1981), pp. 405–421.
3. Robustness of finite element methods for a model parameter dependent problem, D. N. Arnold, in *Advances in Computer Methods for Partial Differential Equations–IV*, R. Vichnevetsky and R. S. Stepleman, eds., IMACS, 1981, pp. 18–22.
2. Superconvergence of the finite element approximation of the solution of a Sobolev partial differential equation in a single space variable, D. N. Arnold, J. Douglas and V. Thomée, *Math. Comp.*, 36(1981), pp. 56–63.
1. Superconvergence of the Galerkin approximation of a quasilinear parabolic equation in a single space variable, D. N. Arnold and J. Douglas, *Calcolo*, 16(1979), pp. 345–369.