

Bibliography

- Abraham, R. and Marsden, J. (1985)** Foundation of Mechanics, 3d Edition, Addison–Wesley
- Aubry, S. and Le Daeron, P.Y. (1983)** The discrete Frenkel-Kontorova model and its extensions. I. Exact results for ground states, *Physica* 8D
- Aubry, S. and Abramovici, G. (1990)** Chaotic trajectories in the standard map: the concept of anti-integrability, *Physica* D 43
- S. Aubry, R. MacKay & C. Baesens (1991)** Equivalence of uniform hyperbolicity for symplectic twist maps and phonon gap for the Frenkel-Kontorova models, *Physica* D 56
- Angenent, S. (1988)** The Periodic orbits of an area preserving twist map, *Comm. in Math. Physics* vol 115, no 3
- Angenent, S. (1990)** Monotone recurrence relations, their Birkhoff orbits and topological entropy; *Ergod. Th. and Dynam. Sys.* 10
- Angenent, S. (1992)** A remark on the topological entropy and invariant circles of an area preserving twist map, in *Twist mappings and their applications*, 1–5, IMA Vol. Math. Appl., 44, Springer
- Angenent, S. & Golé, C. (1991)** Lamination by ghost circles, preprint, ETH, Zürich
- Arnaud, M.C. (1992)** Sur les points fixes des difféomorphismes exacts symplectiques de $T^*\mathbb{T}^n \times \mathbb{R}^n$, *C.R. Acad. Sci. Paris*, t.309, Série I
- Arnaud, M.C. (1992)** Type des points fixes des difféomorphismes symplectiques de $T^*\mathbb{T}^n \times \mathbb{R}^n$, *Mémoire n° 48, Supplément au bulletin de la S.M.F.*, Tome 120, fasc. 1
- Arnold, V. (1963)** Small denominators and problems of stability of motion in classical and celestial mechanics, *Russ. Math. Surv.*, 18
- Arnold, V. (1964)** Instability of dynamical systems with several degrees of freedom, *Dokl. Akad. Nauk* 156, MR 29, # 329
- Arnold, V. (1965)** Sur une propriété topologique des applications globalement canoniques de la mécanique classique, *C.R. Acad. Sci. Paris Série I Math.* 261, Groupe 1
- Arnold, V. (1978)** *Mathematical Methods of Classical Mechanics*, Springer-Verlag
- Arnold, V. (1983)** *Geometric methods in the theory of ordinary differential equations*, Springer-Verlag
- Bangert, V. (1988)** Mather sets for twist maps and geodesics on tori, *Dyn. reported* 1
- Bangert, V. (1989)** Minimal Geodesics, *Ergod. Th. & Dynam. Sys.*, 10

- Banyaga, A. and Golé, C. (1993)** A remark on a conjecture of Arnold: linked spheres and fixed points, in Hamiltonian systems and celestial mechanics, E. Lacombe & J. Llibre (eds.), Advanced Series in Nonlinear Dynamics Vol.4, World Scientific
- Benci, V (1986)** Periodic solutions for Lagrangian systems on a compact manifold, J. Diff. Eq. 63
- Bernstein, D. and Katok, A. (1987)** Birkhoff periodic orbits for small perturbations of completely integrable Hamiltonian systems with convex Hamiltonians, Invent. Math. 88
- Bessi, U. (1996)** An approach to Arnold's diffusion through the calculus of variations. Nonlinear Anal. 26 no. 6
- Bessi, U. (1997)** Arnold's diffusion with two resonances. J. Differential Equations 137, no. 2
- Bessi, U. (1998)** Minimal orbits close to periodic frequencies, Comment. Math. Helv. 73, no. 4
- Bialy, M. and Polterovitch, L. (1992a)** Hamiltonian systems, Lagrangian tori and Birkhoff's Theorem, Math. Ann. 292
- Bialy, M. and Polterovitch, L. (1992b)** Hamiltonian diffeomorphisms and Lagrangian distributions. Geom. Funct. Anal. 2 , no. 2
- Birkhoff, G. (1913)** Proof of Poincaré's geometric theorem, Trans. Amer. Math. Soc. 14
- Birkhoff, G. (1915)** The restricted problem of three bodies, Rend. Circ. Matem. Palermo, t. XXXIX
- Birkhoff (1920)** Surface transformations and their dynamical applications. Collected Math. Papers, vol. 2
- Birkhoff, G. (1925)** An extension of Poincaré's last geometric theorem, Acta Math. 47
- Birkhoff, G. & Lewis, D. (1933)** On the periodic motion near a given periodic motion of a dynamical system, Annali di Matem. 12
- Blank (1989)** Metric properties of minimal solutions of discrete periodic variational problems, Nonlinearity 21-22
- Boyland, P. (1996)** New Dynamical Invariants on Hyperbolic Manifolds, Preprint
- Boyland, P. (1988)** Rotation sets and Morse decomposition for twist maps, Ergod. Th. & Dynam. Sys. 8
- Boyland, P. (1994)** Topological methods in surface dynamics, Topology and its applications 58
- Boyland, P. and Golé, C. (1996a)** Dynamical stability in Lagrangian systems, in Hamiltonian Systems with Three or More Degrees of Freedom, C. Simó, editor, Kluwer Acad. Publ., Dordrecht, Holland.
- Boyland, P. and Golé, C. (1996b)** Lagrangian systems on hyperbolic manifolds, Ergod. Th. & Dynam. Sys. 19, no. 5, 1157–1173.
(See also www.math.sunysb.edu/cgi-bin/preprint.pl?ims96-1a)
- Boyland, P. and Hall, G.R. (1987)** Invariant circles and the order structure of periodic orbits in monotone twist maps. Topology 26, no. 1
- Bolotin, S. & Treschev, D. (1999)** Unbounded growth of energy in nonautonomous Hamiltonian systems. Nonlinearity 12, no. 2, 365–388.
- Bost, J-B. (1986)** Tores invariants des systèmes dynamiques Hamiltoniens, Séminaire Bourbaki no. 639, Astérisque 133-134

- Broer, H., Huitema & G. Sevryuk, M. (1996)** Quasi-periodic motions in families of dynamical systems. Order amidst chaos. Lecture Notes in Mathematics, 1645. Springer-Verlag
- Brown, M. & Von Neuman, W. (1977)** Proof of the Poincaré-Birkhoff fixed point theorem, Michigan Math. J. 24
- Caffarelli, L & de la Llave, R. (1999)** Plane-like minimizers in periodic media, preprint 00-368 at www.ma.utexas.edu/mp_arc/
- Candel, A. & de la Llave, R. (1997)** On the Aubry-Mather theory in statistical mechanics, Comm. Math. Phys. 192 no. 3
- Carneiro, M. (1995)** On minimizing measures of the action of autonomous Lagrangians, Nonlinearity 8
- Carter (1982)** An improvement of the Poincaré-Birkhoff fixed point theorem, Trans. AMS, Vol. 269, Number 1
- Casdagli M. (1987)** Periodic orbits for dissipative twist maps, Ergod. Th. & Dynam. Sys. 7
- Chaperon, M. (1984)** Une idée du type “géodésiques brisées” pour les systèmes hamiltoniens, C.R. Acad. Sc., Paris, 298, Série I, no 13
- Chaperon, M. (1989)** Recent results in symplectic geometry, Dynamical Systems and Ergodic Theory, Banach Center Publications, Volume 23, PWN, Warsaw
- Chenciner, A. (1985)** La dynamique au voisinage d’un point elliptique conservatif, séminaire Bourbaki no. 622 Astérisque Vol. 121-122
- Cielieback, K. (1992)** Pseudo-holomorphic curves and periodic orbits on cotangent bundles, J. Math. Pures Appl. (9) 73, no. 3
- Conley, C. (1978)** Isolated invariant sets and the Morse index, CBMS, Regional Conf. Series in Math., Vol.38
- Conley, C. and Zehnder, E. (1983)** The Birkhoff-Lewis fixed point theorem and a conjecture of V.I. Arnold, Invent. Math. 73
- Conley, C. and Zehnder, E. (1984)** Morse type index theory for Hamiltonian equations Comm. Pure and Appl. Math. vol XXXVII
- Contreras, G., Iturriaga, R. (1999)** G. Contreras, R. Iturriaga, Global minimizers of autonomous Lagrangians. 22^o Colóquio Brasileiro de Matemática. IMPA 1999.
- Contreras, G. (2000)** Action Potential and Weak KAM Solutions, Preprint CIMAT 2000.
- Dancer, E. and Hess, P. (1991)** Stability of fixed points for order preserving discrete time dynamical systems, J.Reine Ang. Math 419.
- de la Llave, R. (1993)** Introduction to K.A.M. theory, in Computational physics (Almuñecar 1992), World Sci. Publishing
- de la Llave, R. (1999)** Variational methods for quasi-periodic solutions of partial differential equations, preprint
- de la Llave, R., Delshams, A. & Seara, T. (2000)** A geometric approach to the existence of orbits with unbounded energy in generic periodic perturbations by a potential of generic geodesic flows of \mathbb{T}^2 . Comm. Math. Phys. 209, no. 2
- Delshams, A. & Gutiérrez, P (1996a)** Effective stability and KAM theory, J. Differential Equations 128, no. 2
- Delshams, A. & Ramirez-Ros, R. (1996b)** Poincaré–Melnikov–Arnold method for analytic planar maps, Nonlinearity 9 (1)

- Delshams, A. & Ramrez-Ros, R. (1997)** Melnikov potential for exact symplectic maps, *Comm. Math. Phys.* 190, no. 1
- Delshams, A. & Ramrez-Ros, R. (1998)** Exponentially small splitting of separatrices for perturbed integrable standard-like maps, *J. Nonlinear Sci.* 8, no. 3
- Dewar & Meiss (1992)** Flux minimizing curves for area-preserving maps, *Phys. D* 57 (3 & 4)
- Douady, R. (1982 a)** Applications du théorème des tores invariants, Thèse U. Paris VII
- Douady, R. (1982 b)** Une démonstration directe de l'équivalence des théorèmes de tores invariants pour les difféomorphismes et les champs de vecteurs, *C.R. Acad. Sci. Paris* 295
- Dobrovine, D., Novikov, S. & Fomenko A. (1987)** Géométrie contemporaine, vol 3, Editions Mir, Moscow, (see also english translation in Springer-Verlag)
- Easton, R. (1984)** Computing the dependence on a parameter of a family of unstable manifolds: generalized Melnikov formulas. *Nonlinear Anal.* 8, no. 1
- Easton, R. (1991)** Transport through chaos, *Nonlinearity* 4, no. 2
- Fathi, A. (1983)** Une interprétation plus topologique de la démonstration du théorème de Birkhoff, appendix of Chapter I in Herman (1983).
- Fathi, A. (1997)** Théorème KAM faible et théorie de Mather sur les systèmes Lagrangiens, *C.R. Acad. Sci. Paris*, t. 324, Série I
- Felmer, P. (1990)** Multiple periodic solutions for Lagrangian systems in \mathbb{T}^n . *Nonlinear Anal.* 15 (1990), no. 9
- Felmer, P. (1992)** Periodic solutions of spatially periodic Hamiltonian systems. *J. Differential Equations* 98, no. 1,
- Floer, A. (1987)** A refinement of Conley index and an application to the stability of hyperbolic invariant sets, *Ergod. Th. and Dyn. Sys.*, vol 7
- Floer, A. (1989a)** Witten's complex for arbitrary coefficients and an application to Lagrangian intersection, *Jour. Diff. Geom.* 30
- Floer, A. (1989b)** Symplectic fixed points and holomorphic spheres, *Comm. Math. Phys.* 120
- Forni, G. & Mather, J. (1994)** Action minimizing orbits in Hamiltonian systems. In *Transition to chaos in classical and quantum mechanics*, Springer
- Franks, J. (1988)** Generalisations of the Poincaré-Birkhoff theorem, *Ann. of Math.* 128
- Froeschlé (1972)** Numerical study of a four-dimensional mapping. *Astronom. and Astrophys.* 16
- Froeschlé, C., Laskar, J. & Celletti, A. (1992)** The measure of chaos by the numerical analysis of the fundamental frequencies. Application to the standard mapping. *Phys. D* 56, no. 2-3
- Gallot, S., Hulin, D. and Lafontaine, J. (1987)** Riemannian Geometry, Springer-Verlag
- Gambaudo, J.M. (1985)** Perturbation of a Hopf bifurcation by an external periodic forcing, *Jour. Diff. Eq.*, 57
- Gelfreich, V., Lazutkin, V. & Svanidze, N. (1994)** A refined formula for the separatrix splitting for the standard map, *Physica D*, 71
- Gelfreich, V. (1999)** A proof of the exponentially small transversality of the separatrices for the standard map. *Comm. Math. Phys.* 201 no. 1
- Glasser, M., Papageorgiou, V. & Bountis, T. (1989)** Melnikov's function for two-dimensional mappings, *SIAM Jour. Appl. Math.*, 49 (3)

- Golé, C. (1989)** Periodic points for monotone symplectomorphisms of $\mathbb{T}^n \times \mathbb{R}^{2n}$, Ph.D. Thesis, Boston University
- Golé, C. (1991)** Monotone maps of $\mathbb{T}^n \times \mathbb{R}^{2n}$ and their periodic orbits, in the Geometry of Hamiltonian systems, edited by T. Ratiu, Springer-Verlag
- Golé, C. (1994)** Periodic orbits for Hamiltonians in cotangent bundles, Trans. A.M.S. 343, Number 1
- Golé, C. (1994)** Optical Hamiltonians and symplectic twist maps, Physica D 71
- Golé, C. (1994c)** Suspension of symplectic twist maps by Hamiltonians, in Hamiltonian dynamical systems (history, theory and applications), IMA volume 63, Springer-Verlag
- Golé, C. (1992)** A new proof of the Aubry-Mather's theorem, Math. Z. 210
- Golé, C. and Hall, G. (1992)** Poincaré's proof of Poincaré's last geometric theorem, in Twist mappings and their applications, IMA volume 44, Springer-Verlag
- Greenberg, M. (1967)** Algebraic Topology, W.A. Benjamin
- Gromov, M. (1985)** Pseudoholomorphic curves in symplectic manifolds, Invent. Math. 82 (1985)
- Guillemin & Pollack (1974)** Differential Topology, Prentice Hall.
- Guillou, L. (1992)** A generalized translation theorem for free homeomorphisms of surfaces. Proc. Amer. Math. Soc. 123, no. 10
- Hall, G. (1984)** A topological version of a theorem of Mather on twist maps, Ergod. Th. and Dynam. Sys. 4
- Hall, G. (1988a)** A remark on the multiplicity of monotone periodic orbits. Erg. Th. Dyn. Sys. 8, Charles Conley Memorial Issue
- Hall, G. (1988b)** Some problems on dynamics of annulus maps. Hamiltonian dynamical systems (Boulder, CO, 1987), Contemp. Math., 81, Amer. Math. Soc.
- Hall, G. (1989)** A topological version of a theorem of Mather on shadowing in monotone twist maps. Dynamical systems and ergodic theory Banach Center Publ., 23, PWN, Warsaw
- Hall, G. & Meyer, K. (1991)** Introduction to Hamiltonian dynamical systems and the N-body problem, Springer.
- Hasselblat, B. & Katok, A. (1995)** Introduction to the modern theory of dynamical systems, Cambridge University Press.
- Haro, A. (1999)** Converse KAM theory for monotone positive symplectomorphisms, Nonlinearity 12
- Haro, A. (1998)** The primitive function of an exact symplectomorphism, Ph.D. Thesis, Universitat de Barcelona, www.maia.ub.es/dsg/1998/index.html.
- Hedlund (1932)** Geodesics on a two-dimensional Riemannian manifold with periodic coefficients, Ann. Math. 33
- Herman, M. (1983)** Sur les courbes invariantes par les difféomorphismes de l'anneau, vol. I, Asterisque, 103-104
- Herman, M. (1990)** Inégalités à priori pour des tores lagrangiens invariants par des difféomorphismes symplectiques, Publ. Math. I.H.E.S. 70
- Herman, M. (1992a)** On the dynamics of Lagrangian tori invariant by symplectic diffeomorphisms. Progress in variational methods in Hamiltonian systems and elliptic equations (L'Aquila, 1990), Pitman Res. Notes Math. Ser., 243, Longman Sci. Tech., Harlow
- Herman, M. (1992b)** Dynamics connected with indefinite normal torsion, in Twist mappings and their applications, IMA volume 44, Springer-Verlag

- Hirsch, M. (1988)** Stability and convergence in strongly monotone dynamical systems
J. reine angew. Math. 383
- Hirsch, M. and Smale, S. (1974)** Differential equations, dynamical systems and linear algebra, Academic Press
- Josellis, F. (1994a)** Lyusternik-Schnirelman theory for flows and periodic orbits for Hamiltonian systems on $T^n \times R^n$, Proc. London Math. Soc. (3) 68, no. 3
- Josellis, F. (1994b)** Morse theory for forced oscillations of Hamiltonian systems on $T^n \times R^n$, J. Differential Equations 111, no. 2
- Katok, A. (1982)** Some remarks on Birkhoff and Mather twist map theorems, Ergod. Th. & Dynam. Sys., 2
- Katok, A. (1992)** Minimal orbits for small perturbations of completely integrable Hamiltonian systems, in Twist mappings and their applications, IMA volume 44, Springer-Verlag
- Katzenelson, Y. and Ornstein, D. (1997)** Twist maps and Aubry-Mather sets. Lipa's legacy (New York, 1995), Contemp. Math., 211, Amer. Math. Soc.
- Klingenberg, W. (1982)** Differential geometry, Walter de Gruyter
- Kolmogorov, A. (1954)** The general theory of dynamical systems and classical mechanics, address to the 1954 International Congress of Mathematicians, English translation in the appendix of Abraham & Marsden (1985)
- Kook, H. and Meiss, J. (1989)** Periodic orbits for reversible, symplectic mappings, Physica D 35
- Koch, H., de la Llave & R. & Radin, C. (1994)** Aubry-Mather theory for functions on lattices. Discrete Contin. Dynam. Systems 3, no. 1
- Lang, S. (1983)** Real Analysis, Addison-Wesley
- Laudenbach & Sikorav (1985)** Persistence d'intersection avec la section nulle au cours d'une isotopie hamiltonienne dans un fibré cotangent, Invent. Math. 82
- LeCalvez, P. (1990)** Études topologique des applications déviant la verticale, Ensaos matemáticos, Vol. 2, Soc. Bras. de Mat.
- LeCalvez, P. (1991)** Propriétés dynamiques des difféomorphismes de l'anneau et du tore, Astérisque 204
- LeCalvez, P. (1997)** Une généralisation du théorème de Conley-Zehnder aux homéomorphismes du tore de dimension deux, Ergodic Theory & Dynam. Sys. 17, no. 1
- Levi M. (1997)** Shadowing property of geodesics in Hedlund's metric, Ergodic Theory Dynam. Systems 17, no. 1
- Lochak, P. (1992)** Canonical perturbation theory via simultaneous approximation, Russ. Math. Surv. 47:6
- McDuff, D. and Salamon, D. (1996)** Introduction to Symplectic Topology, Oxford Mathematical Monographs
- MacKay, R. (1993)** Renormalization in area preserving maps, World Scientific
- MacKay, R. & Meiss, J. (1983)** Linear stability of periodic orbits in Lagrangian systems, Phys. Lett. 98A, 92
- MacKay, R. & Percival, I. (1985)** Converse KAM: theory and practice, Commun. Math. Phys. 98
- MacKay, R., Meiss, J. & Percival, I. (1984)** Transport in Hamiltonian systems, Physica 13D
- MacKay, R., Meiss, J. & Percival, I. (1986)** Resonances in area-preserving maps, Physica 27D

- MacKay, R., Meiss, J. and Stark, J. (1989)** Converse KAM theory for symplectic twist maps, *Nonlinearity* 2
- Mañe, R. (1987)** Ergodic theory and differentiable dynamics, Springer-Verlag
- Mañe, R. (1991)** Global variational methods in conservative dynamics, 18^o Colóquio Brasileiro de Matemática, IMPA
- Mañe, R. (1992)** On the minimizing measures of Lagrangian dynamical systems, *Nonlinearity* 5
- Mañe, R. (1996a)** Generic properties and problems of minimizing measures of Lagrangian systems, *Nonlinearity* 9
- Mañe, R. (1996a)** Lagrangian flows: the dynamics of globally minimizing orbits, International Congress on Dynamical Systems in Montevideo (a tribute to Ricardo Mañé), F. Ledrappier, J. Lewowicz, S. Newhouse eds, Pitman Research Notes in Math. 362, Reprinted in *Bol. Soc. Bras. Mat.* Vol 28, N. 2
- Mather, J. (1982)** Existence of quasiperiodic orbits for twist homeomorphisms, *Topology* 21
- Mather, J. (1984)** Non-existence of invariant circles, *Ergod. Th. & Dynam. Sys.* 2
- Mather, J. (1985)** Nore Denjoy minimal sets for area-preserving diffeomorphisms, *Comm. Math. Helv.* 60 508-557
- Mather, J. (1986)** A criterion for the non-existence of invariant circles *Publ. Math. I.H.E.S.* 63
- Mather, J. (1991b)** Action minimizing invariant measures for positive definite Lagrangian systems, *Math. Z.* 207
- Mather, J. (1993)** Variational constructions of connecting orbits, *Ann. Inst. Fourier, Grenoble* 43, No. 5
- Mawhin, J. and Willem, M. (1989)** Critical point theory and Hamiltonian systems, Springer-Verlag
- Meiss, J. (1992)** Symplectic maps, variational principles, and transport, *Rev. Mod. Phys.* 6, No. 3
- Milnor, J. (1969)** Morse theory, Princeton University Press
- Moser, J. (1962)** On invariant curves of area-preserving mappings of an annulus, *Nachr. Akad. Wiss. Göttingen, Math. Phys. K1.II* (see also the next reference)
- Moser, J. (1973)** Stable and random motions in dynamical systems, Princeton University Press
- Moser, J. (1977)** Proof of a generalized form of a fixed point theorem due to G.D. Birkhoff, *Lecture Notes in Mathematics, Vol. 597: Geometry and Topology*, Springer
- Moser, J. (1986a)** Monotone twist mappings and the calculus of variations, *Ergod. Th. and Dyn. Sys.*, Vol 6
- Moser, J. (1986b)** Minimal solutions of variational problems on a torus, *Ann. Inst. H. Poincaré, Anal. Non Linéaire*, 3 (3)
- Moser, J. (1988)** A stability theorem for minimal foliations on a torus, *Erg. Th. & Dyn. Sys.*, 8* (Charles Conley Memorial Issue)
- Morse, M. (1924)** A fundamental class of geodesics on any closed surface of genus greater than one. *Trans. AMS*, 26
- Munkres (1975)** *Topology, A first course*, Prentice Hall
- Nekhoroshev, M. (1977)** An exponential estimate of the time of stability of nearly integrable Hamiltonian systems, *Russ. Math. Surv.* 32, No. 6

- Percival (1979)** A variational principle for invariant tori of fixed frequency, *J. Phys. A* 12
- Pöshel, J. (1993)** Nekhoroshev estimates for quasi-convex Hamiltonian systems. *Math. Z.* 213, No. 2
- Poincaré, H. (1885)** Sur les courbes définie par les équations différentielles, Chapter XV, *Journal de Mathématiques pures et appliquées*, 4^e série, t.1 (this and the following two references can be also found in the “*Euvres complètes de Henri Poincaré*”, Gauthier Villar, (1951))
- Poincaré, H. (1890)** Sur le problème des trois corps et les équations de la dynamique, *Acta Math.* 13
- Poincaré, H. (1895)** Analysis situs, *J. de l'École Polyt.* (2) 1
- Poincaré, H. (1912)** Sur un théorème de géométrie, *Rend. Circ. Math. Palermo*, 33
- Poincaré, H. (1892)** Les méthodes nouvelles de la mécanique céleste (3 volumes), Gauthier–Villars, Paris
- Robbin, J. & Salamon, D. (1988)** Dynamical systems, shape theory and the Conley index, *Ergod. Th. & Dynam. Sys.* 8* (Charles Conley Memorial Issue)
- Robinson, C. (1970)** Generic properties of conservative systems, *Am. Jour. Math.*, Vol XCII, No. 3
- Robinson, C. (1994)** *Dynamical Systems*, CRC Press
- Rolfen, D. (1976)** *Knots and links*, Publish or Perish
- Rom-Kedar, V. & Wiggins, S. (1990)** Transport in two-dimensional maps, *Arch. Rat. Mech. & Anal.* Vol 109, Number 3
- Rüssmann, H. (1970)** Kleine Nenner I: Über invarianten Kurven differenzierbarer Abbildungen eines Kreisringes, *Nachr. Akad. Wiss. Göttingen, Math. Phys. Kl.*
- Salamon, D. (1985)** Connected simple systems and the Conley index for isolated invariant sets, *Trans. AMS*, Vol. 291 Number 1
- Salamon, D. (1990)** Morse Theory, the Conley index and Floer homology, *Bull. London Math. Soc.* 22
- Siburg, K.F. (1995)** Symplectic Capacities and Bi-invariant Metrics on Hamiltonian Diffeomorphisms, Thesis Diss. Nr.11110, ETH Zürich
- Siburg, K.F. (1998)** Action minimizing measures and the geometry of the Hamiltonian diffeomorphism group. *Duke Math. J.* 92 No.2
- Siegel, C. & Moser, J. (1971)** *Lectures in Celestial mechanics*, Springer
- Simó, C. (1990)** On the analytical and numerical approximation of invariant manifolds, in *Les méthodes modernes de la mécanique céleste* (Goutelas 89), D. Benest, C. Froeschlé (eds.)
- Sikorav (1986)** Sur les immersions lagrangiennes dans un fibré cotangent admettant une phase génératrice globale, *C.R. Acad. Sci. Paris*, t. 302, Série I. n^o 3
- Slijepčević, S. (1999a)** Monotone gradient dynamics and Mather's shadowing, *Nonlinearity* 12, no. 4
- Slijepčević, S. (1999b)** Accelerating orbits of twist diffeomorphisms on a torus, *Glas. Mat. Ser. III* 34(54) (1999), no. 1
- Spanier, E. (1966)** *Algebraic Topology*, McGraw-Hill
- Spivak, M. (1970)** *A comprehensive introduction to differential geometry*, Vol 1, Publish or Perish
- Stillwell, J. (1980)** *Classical topology and combinatorial group theory*, Springer

- Tabacman, E. (1993)** Ph.D. Thesis, University of Minnesota.
- Tabacman, E. (1995)** Variational computation of homoclinic orbits for twist maps, Phys. D 85 (1995), no. 4
- Tangerman, F. and Veerman, JP. (1989)** Renormalization of Aubry-Mather Cantor sets, J. Statist. Phys. 56, no. 1-2
- Tangerman, F. and Veerman, JP. (1990a)** On Aubry-Mather sets. Phys. D 46, no. 2
- Tangerman, F. and Veerman, JP. (1990b)** Asymptotic geometry of hyperbolic well-ordered Cantor sets, J. Statist. Phys. 59 (1990), no. 1-2
- Tangerman, F. and Veerman, JP. (1991)** Intersection properties of invariant manifolds in certain twist maps, Commun. Math. Phys. 139
- Theret, D. (1999)** A complete proof of Viterbo's uniqueness theorem on generating functions, Topology Appl. 96 , no. 3
- Weinstein, A. (1979)** Lectures on Symplectic Manifolds, CBMS series no. 29, A.M.S.
- Viterbo, C. (1987)** Intersection de sous variétés Lagrangiennes, fonctionnelles d'action et indice de systèmes Hamiltoniens, Bull. Soc. Math. France 115
- Viterbo, C. (1992)** Symplectic topology as the geometry of generating functions, Math. Ann. 292
- Weinstein, A. (1979)** Lectures on symplectic manifolds, C.B.M.S. Conf. Series, no.29, AMS
- Wiggins, S. (1990)** On the geometry of transport in phase space. 1. Transport in k-degree-of-freedom Hamiltonian systems, $2 \leq k < \infty$., Physica D 44
- Xia, Z. (1998)** Arnold diffusion: a variational construction. Proceedings of the International Congress of Mathematicians, Vol. II (Berlin, 1998). Doc. Math. , Extra Vol. II
- Yoccoz, J.-C. (1992)** Travaux de Herman sur les tores invariants, Séminaire Bourbaki no. 754, Astérisque No. 206