

# Publication List

## I. Monographs

1. *Optimization and Nonsmooth Analysis*, Wiley Interscience, New York 1983 (Reprinted in 1990: Vol. 5, Classics in Applied Mathematics, Society for Industrial and Applied Mathematics, Philadelphia, Pa.) Russian trans.: Nauka Press, Moscow, 1988.
2. *Methods of Dynamic and Nonsmooth Optimization*, CBMS/NSF Regional Conference Series in Applied Mathematics 57, SIAM Publications, Philadelphia, 1989.
3. *Nonsmooth Analysis and Control Theory*, with Yu. Ledyev, R. Stern and P. Wolenski, Graduate Texts in Mathematics Vol. 178, Springer-Verlag, New York, 1998.
4. *Necessary Conditions in Dynamic Optimization*, Memoirs of the American Mathematical Society, No. 816, vol. 173, Providence, R.I., 2005.

## II. Articles in refereed journals

1. A graph polynomial and its applications, *Journal of Discrete Mathematics* 3 (1972) 305-313.
2. Necessary conditions for nonsmooth variational problems, in *Optimal Control Theory and its Applications*, Lecture Notes in Econ. and Math. Systems 106, Springer-Verlag, N.Y. (1974).
3. Un probleme general variationnel, in *Analyse et Contrôle des Systemes*, INRIA, France (1974).
4. Generalized gradients and applications, *Transactions Amer. Math. Soc.* 205 (1975) 247- 262.
5. Maximum principles without differentiability, *Bulletin Amer. Math. Soc.* 81 (1975) 219- 222.

6. The Euler-Lagrange differential inclusion, *Journal of Differential Equations* 19 (1975) 80- 90.
7. La condition hamiltonienne d'optimalité, *Comptes Rendus Acad. des Sciences de Paris* 280 (1975) 1205-1207.
8. Admissible relaxation in variational and control problems, *Journal Math. Anal. Appl.* 51 (1975) 557-576.
9. Le principe du maximum with un minimum d'hypothèses, *Comptes Rendus Acad. des Sciences de Paris* 281 (1975) 281-293.
10. The generalized problem of Bolza, *SIAM J. of Control Optimization* 14 (1976) 682-699.
11. Lagrange multipliers, generalized gradients and calmness, *Proceedings of the International Symposium on Mathematical Programming (August 1976)*, Hungarian Academy of Sciences.
12. A new approach to Lagrange multipliers, *Math. of Operations Research* 1 (1976) 165- 174.
13. On the inverse function theorem, *Pacific J. Math.* 64 (1976) 97-102.
14. Measures, multicolourings and games on graphs, with R.E. Jamison, *J. of Discrete Math.* 14 (1976) 241-245.
15. Necessary conditions for a general control problem, in *Calculus of Variations and Control Theory*, pp. 259-278, ed. D. Russell (Mathematics Research Center, Pub. No. 36, University of Wisconsin, Sept. 1975), Academic Press 1976.
16. The maximum principle under minimal hypotheses, *SIAM J. of Control and Optimization* 14 (1976) 1078-1091.
17. Optimal solutions to differential inclusions, *J. Optimization Theory and Applications* 19 (1976) 469-478.
18. Extremal arcs and extended Hamiltonian systems, *Transactions American Math. Society* 231 (1977) 349-367.<sup>1</sup>

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<sup>1</sup>Russian translation: *Differentsialnye Uravnenia* 13 (1977) 427- 442.

19. Multiplicateurs de Lagrange en optimisation non-convexe et applications, with J. P. Aubin, *Comptes Rendus Acad. des Sciences de Paris* 285 (1977) 451-454.
20. Multiple integrals of Lipschitz functions in the calculus of variations, *Proceedings Amer. Math. Soc.* 64 (1977) 260-264.
21. Inequality constraints in the calculus of variations, *Canadian J. Math.* 3 (1977) 528-540.
22. Monotone invariant solutions to differential inclusions, with J. P. Aubin, *J. London Math. Soc.* (2) 16 (1977) 357-366.
23. Pointwise contraction criteria for the existence of fixed points, *Bulletin Can. Math. Soc.* 21 (1978) 7-11.
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26. Shadow prices and duality for a class of optimal control problems, with J. P. Aubin, *SIAM J. Control and Optimization* 17 (1979) 567-587.
27. A classical variational principle for periodic Hamiltonian trajectories, *Proceedings of the Amer. Math. Soc.* 76 (1979) 186-188.
28. Oscillations entretenues de systèmes hamiltoniens non linéaires, with I. Ekeland, *Comptes Rendus Acad. Sci. Paris* 289 (1979) 393-395.
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31. Gross's Logarithmic Sobolev Inequality: A simple proof, with R.A. Adams, *American J. Math.* 101 (1979) 1265-1269.

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34. Hamiltonian trajectories having prescribed minimal period, with I. Ekeland, *Comm. Pure and Applied Math.* 33 (1980) 103-116.
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42. Nonlinear oscillations and boundary-value problems for Hamiltonian systems, with I. Ekeland, *Archive for Rational Mechanics and Analysis* 78 (1982) 315-333.
43. Optimal pricing policy in the presence of experience effects, with M. Darrough and J. Heineke, *Journal of Business* 55 (1982) 517-530.

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139. The Nonsmooth Maximum Principle, with M. d. R. de Pinho, submitted.
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