

11. ———, *Generalized curves*, Duke Math. J. **6** (1940), 513–536.
12. ———, *Existence theorems for Bolza problems in the calculus of variations*, Duke Math. J. **7** (1940), 28–61.
13. L. W. Neustadt, *A general theory of minimum-fuel space trajectories*, J. SIAM Control Ser. A **3** (1965), 317–356.
14. ———, *An abstract variational theory with applications to a broad class of optimization problems*. I, II, SIAM J. Control Optim. **4** (1966), 503–527; ibid. **5** (1967), 90–137.
15. ———, *Optimization—A theory of necessary conditions*, Princeton Univ. Press, Princeton, N. J., 1976.
16. L. S. Pontryagin, V. G. Boltyanskii, R. V. Gamkrelidze and E. F. Mishchenko, *The mathematical theory of optimal processes*, Fitzmatgiz, Moscow, 1961; English transl., Wiley, New York, 1962.
17. R. W. Rishel, *An extended Pontryagin principle for control systems whose control laws contain measures*, SIAM J. Control Optim. **3** (1965), 191–205.
18. E. Roxin, *The existence of optimal controls*, Michigan Math. J. **9** (1962), 109–119.
19. W. W. Schmaedecke, *Optimal control theory for nonlinear vector differential equations containing measures*, SIAM J. Control Optim. **3** (1965), 231–280.
20. L. Tonelli, *Sugli integrali del calcolo delle variazioni in forma ordinaria*, Ann. Scuola Norm. Sup. Pisa (2) **3** (1934), 401–405.
21. F. A. Valentine, *The problem of Lagrange with differential inequalities as added side conditions*, Contributions to the Calculus of Variations, 1933–1937, Univ. of Chicago Press, Chicago, 1937, pp. 407–448.
22. J. Warga, *Relaxed variational problems*, J. Math. Anal. Appl. **4** (1962), 111–128.
23. ———, *Minimizing variational curves restricted to a preassigned set*, Trans. Amer. Math. Soc. **112** (1964), 432–455.
24. ———, *Variational problems with unbounded controls*, J. SIAM Control Ser. A **3** (1965), 424–438.
25. ———, *Optimal control of differential and functional equations*, Academic Press, New York, 1972.
26. ———, *Necessary conditions without differentiability assumptions in optimal control*, J. Differential Equations **18** (1975), 41–62.
27. T. Ważewski, *Sur la généralisation de la notion des solutions d'une équation au contingent*, Bull. Acad. Polon. Sci. Ser. Sci. Math. Astronom. Phys. **10** (1962), 11–15.
28. ———, *Sur les systèmes de commande non linéaires dont le contredomaine de commande n'est pas forcément convexe*, Bull. Acad. Polon. Sci. Ser. Sci. Math. Astronom. Phys. **10** (1962), 17–21.
29. L. C. Young, *Generalized curves and the existence of an attained absolute minimum in the calculus of variations*, C. R. Sci. Lettres Varsovie, C III **30** (1937), 212–234.
30. ———, *Lectures on the calculus of variations and optimal control theory*, Saunders, Philadelphia, 1969.

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Statistical analysis of counting processes, by Martin Jacobsen, Lecture Notes in Statistics, Vol. 12, Springer-Verlag, New York, 1982, vii + 226 pp., \$14.80. ISBN 0-3879-0769-6

As the implications of a mathematical structure become more deeply understood, the number of applied problems that may be solved by that structure increases rapidly, often in some surprising directions. In *The statistical analysis of counting processes*, Martin Jacobson has given us an excellent account of just