

## REFERENCES

1. H. Cartan and J. Deny, *Le principe du maximum en théorie du potentiel et la notion de fonction surharmonique*, Acta Sci. Math. Szeged **12** (1950), 81–100. MR **12**, 257.
2. J. Deny, *Familles fondamentales. Noyaux associés*, Ann. Inst. Fourier (Grenoble) **3** (1951), 73–101 (1952). MR **16**, 698.
3. J. L. Doob, *Semimartingales and subharmonic functions*, Trans. Amer. Math. Soc. **77** (1954), 86–121. MR **16**, 269.
4. ———, *A probability approach to the heat equation*, Trans. Amer. Math. Soc. **80** (1955), 216–280. MR **18**, 76.
5. G. A. Hunt, *Markoff processes and potentials*. I, Illinois J. Math. **1** (1957), 44–93. MR **19**, 951.
6. G. Lion, *Familles d'opérateurs et frontière en théorie du potentiel*, Ann. Inst. Fourier (Grenoble) **16** (1966), fasc. 2, 389–453. MR **35** #6207.
- 7a. G. Mokobodzki, *Densité relative de deux potentiels comparables*, Séminaire de Probabilités, IV (Univ. Strasbourg, 1968/69), Lecture Notes in Math., vol. 124, Springer-Verlag, Berlin and New York, 1970, pp. 170–194. MR **45** #3747.
- 7b. ———, *Quelques propriétés remarquables des opérateurs presque positifs*, Séminaire de Probabilités, IV (Univ. Strasbourg, 1968/69), Lecture Notes in Math., vol. 124, Springer-Verlag, Berlin and New York, 1970, pp. 195–207. MR **45** #3748.
8. ———, *Dualité formelle et représentation intégrale des fonctions excessives*, Actes Congrès Internat. Math. (Nice, 1970), vol. 2, Gauthier-Villars, Paris, 1971, pp. 531–535.
9. D. Ray, *Resolvents, transition functions, and strongly Markovian processes*, Ann. of Math. (2) **70** (1959), 43–72. MR **21** #6027.
10. D. W. Stroock, *The Kac approach to potential theory*. I, J. Math. Mech. **16** (1967), 829–852. MR **34** #8499.

P. A. MEYER

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*Mathematics of organization*, by Mircea Malita and Corneliu Zidăroiu, Abacus Press, Tunbridge Wells, Kent, England, 1974, 383 pp., \$30.00.

The Nobel Prize in Economics for 1975 was awarded to Leonid V. Kantorovich and Tjalling C. Koopmans for their contributions to the theory of optimum allocations of resources. This event emphasized the fact that the mathematics of operations research has been developed in parallel with economic theory. Books on operations research, such as the one under review, emphasize optimization problems, especially linear programming, game theory and control theory. These topics have been developed in the past thirty years and a sketch of this development may help to put in perspective the mathematics, presented in this book in a rather terse style.

In 1928 John von Neumann [16] gave a mathematical formulation of games of strategy and proved the celebrated minimax theorem justifying his definition of the value of a noncooperative game. This work was not pursued further until the economist Oskar Morgenstern, having been forced to leave Vienna, came to Princeton University and, during the classical tea in Fine Hall, talked with von Neumann about games and economics. This conversation led to the collaboration between Morgenstern and von Neumann which resulted in the publication in 1944 [17] of their famous book *The theory of games and economic behavior*. A fascinating account of this collaboration may be found in [11].

In 1939 the Russian mathematician Leonid Kantorovich published a paper