The Fulkerson Prize Winners

1979

Selection Committee:

Ronald L. Graham, Victor L. Klee, Albert W. Tucker (Chairman ?)

Richard M. Karp, "On the computational complexity of combinatorial problems" *Networks* 5 (1975) 45–68.

Kenneth Appel and Wolfgang Haken, "Every planar map is four colorable, Part I: Discharging" *Illinois J. Math.* 21 (1977) 429–490.

Paul D. Seymour, "The matroids with the max-flow min-cut property" *Journal of Combinatorial Theory, Series B* 23 (1977) 189–222.

1982

Selection Committee:

Ronald L. Graham (Chairman), Victor L. Klee, Richard M. Karp

L. G. Khachiyan, "A polynomial algorithm in linear programming" *Doklady Akademiia Nauk SSSR* 244 (1979) 1093–1096 (translated in *Soviet Mathematics Doklady* 20 (1979) 191–194).

D. B. Iudin and A. S. Nemirovskii, "Informational complexity and effective methods of solution for convex extremal problems" *Ekonomika i Matematicheskie Metody* 12 (1976) 357–369 (translated in *Matekon: Translations of Russian and East European Math. Economics* 13 (1977) 25–45.

One prize was jointly given to Khachiyan and Iudin & Nemirovskii.

Martin Grötschel, László Lovász and Alexander Schrijver, "The ellipsoid method and its consequences in combinatorial optimization" *Combinatorica* 1 (1981) 169–197.

G. P. Egorychev, "The solution of van der Waerden's problem for permanents" *Dokl. Akad. Sci. SSSR* 258 (1981) 1041–1044 (translated in *Advances in Math.* 42 (1981) 299–305.

D. I. Falikman, "A proof of the van der Waerden conjecture on the permanent of a double stochastic matrix" *Mat. Zametiki* 29 (1981) 931–938.

One prize was jointly given to Egorychev and Falikman.

1985

Selection Committee:

László Lovász, Richard M. Karp (?), Ronald L. Graham (?)

Jozsef Beck, "Roth's estimate of the discrepancy of integer sequences is nearly sharp" *Combinatorica* 1 (1981) 319–325.

H. W. Lenstra, Jr., "Integer programming with a fixed number of variables" *Mathematics of Operations Research* 8 (1983) 538–548.

Eugene M. Luks, "Isomorphism of graphs of bounded valence can be tested in polynomial time" *Journal of Computer and System Sciences* 25 (1982) 42–65.

1988

Selection Committee:

Martin Grötschel, Manfred Padberg (Chairman), Gian-Carlo Rota

Éva Tardos, "A strongly polynomial minimum cost circulation algorithm" *Combinatorica* 5 (1985) 247–256.

Narendra Karmarkar, "A new polynomial-time algorithm for linear programming" *Combinatorica* 4 (1984) 373–395.

1991

Selection Committee:

Louis J. Billera, Martin Grötschel (Chairman), Paul D. Seymour

Alfred Lehman, "The width-length inequality and degenerate projective planes" in: W. Cook and P. D. Seymour (eds.), "Polyhedral Combinatorics", DIMACS Series in Discrete Mathematics and Theoretical Computer Science, Vol. 1, 1990, American Mathematical Society, 101 − 105.

Nikolai E. Mnev, "The universality theorems on the classification problem of configuration varieties and convex polytope varieties" in: O. Ya. Viro (Ed.), *Topology and Geometry-Rohlin Seminar*, Lecture Notes in Mathematics 1346, Springer-Verlag, Berlin, 1988, 527 − 544.

Martin Dyer, Alan Frieze and Ravi Kannan, "A random polynomial time algorithm for approximating the volume of convex bodies" in: Proceedings of

the Twenty-first Annual ACM Symposium on Theory of Computing, Seattle, Washington, May 15 − 17, 1989, Association of Computing Machinery, pp. 375 − 381 and
Journal of the Association of Computing Machinery 38 (1991) 1–17.