

ISOLDE III

Thursday a.m., session 1

Covering Problems

- R.L. Church,
J.R. Weaver Approaches to solving covering problems. published as: Church, R.L.; Weaver, J.R. "Theoretical links between median and coverage location problems," *Annals of Operations Research* 6: 1986, 1-19.
- M.W. Broin,
T.J. Lowe Solving planar location covering problems: exploiting large (greedy) totally balanced submatrices. published as: Broin, M.W.; Lowe, T.J. "Coverage location problems and totally balanced relaxations: simulation results," *Location Science* vol?: 1994, page?
- K. Hogan,
C. ReVelle Concepts and applications of backup coverage. published as: Hogan, K.; ReVelle, C. "Concepts and applications of backup coverage," *Management Science* 32: 1986, 1434-1444.
- T.B. Boffey Solving covering problems by dual methods. not published.

Thursday a.m., session 2

Solving p-Median Problems

- K. Chelst Solution of large-scale p-median problems. not published, by the decision of commissioning consulting firm.
- P. Lemke,
R.T. Wong Valid inequalities and facets for the k-median location problem. not published; results appear in P. Lemke's doctoral thesis.
- F. Louveaux Discreet stochastic location models and algorithms. published as: Louveaux, F. "Discrete stochastic location models," *Annals of Operations Research* 6: 1986, 23-34.

Thursday p.m., session 1

Contributions to Location Modeling

- J. Krarup,
P.M. Pruzan Locational decisions: problems of optimal problem formulation.
- L. Lundqvist A flexible planning model for residential location with regard to welfare, cost and energy considerations.
- G. Leonardi A general family of random-utility based objective functions to analyse locational patterns.

Thursday p.m., session 2

Spatial and Network Equilibria

- J.G. Morris Two-line algorithms for computing spatial equilibria. published as: Guder, F.; Morris, J.G. "Spatial equilibrium, distribution center location, and successive over-relaxation," *Annals of Operations Research* 6: 1986, 113-128.
- R.L. Tobin,
T.L. Freisz Spatial competition facility location models: definition, formulation and solution approach. published as: Tobin, R.L.; Friesz, T.L. "Spatial competition facility location models: definition, formulation and solution approach," *Annals of Operations Research* 6: 1986, 49-74.
- M.E. O'Kelly Locational modeling and spatial interaction theory. published as: O'Kelly, M.E. "The location of interacting hub facilities," *Transportation Science* 20: 1986, 92-106.
- P. Burton An efficient location-allocation algorithm for the dynamic spatial optimization of facilities in a plane.
- N. Megiddo Dynamic location problems. published as: Megiddo, N. "Dynamic location problems," *Annals of Operations Research* 6: 1986, 313-319.

Friday a.m.

Competitive Locations

- S.L. Hakimi Toward more practical models for competitive locations. published as: Hakimi, S.L. "p-median theorems for competitive locations," *Annals of Operations Research* 6: 1986, 77-98.
- P.J. Lederer Duopoly competition in networks. published as: Lederer, P.J. "Duopoly competition in networks," *Annals of Operations Research* 6: 1986, 99-109.
- P. Hansen Algorithms for competitive location.
- A. dePalma,
V. Ginsberg,
M. Labbé,
J.F. Thisse Competitive location theory under consumers' probabilistic choices. published as: dePalma, A.; Ginsberg, V.; Labbé, M.; Thisse, J.F. "Competitive location with random utilities," *Transportation Science* 23: 1989, 244-253.
- A.S. Fotheringham,
D.C. Knudsen Aspects of location modelling with probabilistic demand and competition or agglomeration effects.
- M. BenAkiva,
A. dePalma,
J.F. Thisse Agglomeration and congestion effects in firm location. not published.

Friday p.m.

Center Locations and Related Problems

- D.T. Lee,
Y.F. Wu Efficient algorithms for the Euclidean 1-line-center and related problems.
- N. Megiddo,
E. Zemel An $o(n \log n)$ randomized algorithm for the weighted Euclidean 1-center problem. published as: Meggido, N.; Zemel, E. "A randomizing $O(n \log n)$ algorithm for the weighted Euclidean 1-center problem," *Journal of Algorithms* 7: 1986, 358-368.
- A. Tamir A finite algorithm for the continuous p-center location problem on a graph. published as: Tamir, A. "A finite algorithm for the continuous p-center location problem on a graph," *Mathematical Programming* 31: 1985, 298-306.
- D.S. Hochbaum,
D.B. Shmoys A best possible heuristic for the k-center problem. published as: Hochbaum, D.S.; Shmoys, D.B. "A best possible heuristic for the k-center problem," *Mathematics of Operations Research* 10: 1985, 180-184.
- G. Andreatta,
F.M. Mason Center, median and k-centrum of a tree. published as: Andreatta, G.; Mason, F.M. "Review of recent results about the k-centrum of a tree," *Annals of Operations Research* 6: 1986, 129-136.
- C.D.T. Watson-Gandy Multifacility minimax Weber problems.
- E. Melachrinoudis,
T.P. Cullinane Locating an obnoxious facility within a bounded region. published as: Melachrounidis, E.; Cullinane, T.P. "Locating an obnoxious facility within a polynomial region," *Annals of Operations Research* 6: 1986, 137-145.

Saturday a.m.

Applications

- J.P. Osleeb,
S.J. Ratick Evaluating dredging and off-shore loading locations for U.S. coal exports using the coal logistics system. published as: Osleeb, J.P.; Ratick, S.J.; Buckley, P.; Lee, K.; Kuby, M. "Evaluating dredging and offshore loading locations for U.S. coal exports using the local logistics system," *Annals of Operations Research* 6: 1986, 163-180.
- H.N. Psaraftis,
G.G. Thanakan,
A. Ceder Optimal response to oil spill: the strategic decision case.

- S.K. Jacobsen Plant location with pipeline distribution systems. not published.
- L.G. Mattsson Residential location and school management in a tightening urban economy. published as: Mattson, L.G. "Residential location and school management in a tightening urban economy," *Annals of Operations Research* 6: 1986, 181-200.
- S.C. Wirasinghe,
N.M. Waters Location of bus garages.
- Z. Drezner Lower bounds for the quadratic assignment problem.

Monday a.m., session 1

Locations with Probabilistic and Equality Considerations

- R. Batta,
O. Berman,
S. Chiu,
R.C. Larson,
A.R. Odoni Locations in the presence of congestion. published as: Brandeau, M.L.; Chiu, S.S.; Batta, R. "Locating the two-median of a tree network with continuous line demand," *Annals of Operations Research* 6: 1986, 223-253.
- K. Koutsopoulos An extension of the p-median problem to include a stochastic network and servers.
- M.S. Daskin Locating and routing multiple emergency vehicles with stochastic travel times: preliminary results. published as: Daskin, M.S. "Location, dispatching and routing models for emergency services with stochastic travel times." *Spatial Analysis and Location-Allocation Models*. A. Ghosh, G. Rushton, eds. Van Nostrand Reinhold Co., New York, 1987, pp. 224-265.
- P.B. Mirchandani,
J. Reilly Spatial nodes in discreet location problems. published as: Mirchandani, P.B.; Reilly, J. "Spatial nodes in discrete location problems OR Discrete facility location with nonlinear diseconomies in fixed costs," *Annals of Operations Research* 6: 1986, 203-222.
- O. Maimon The Lorenz measure in locational decisions on trees. published as: Maimon, O. "An algorithm for the Lorenz measure in locational decisions on trees," *Journal of Algorithms* 9: 1988, 583-596.

Monday a.m., session 2

Hierarchical Location Problems

- S.C. Narula,
Y. Eitan Models of hierarchical location-allocation problems. published as: Narula, S.C. "Minisum hierarchical location-allocation problems on a network survey," *Annals of Operations Research* 6: 1986, 257-272.

Monday p.m., session 1

Hierarchical Location Problems, continued

- J.E. Storbeck A hierarchical programming approach to the siting of central places.
- M.J. Hodgson Alternative approaches to hierarchical location-allocation systems.
published as: Hodgson, M.J. "A hierarchical location-allocation model
with allocations based on facility size," *Annals of Operation Research*
6: 1986, 273-289.
- J.R. Current,
C. ReVelle,
J.L. Cohon Hierarchical network models: the hierarchical network construction
problems and the median shortest path problem. published as: Current,
J.R.; ReVelle, C.; Cohon, J.L. "The hierarchical network design
problem," *European Journal of Operational Research* 27: 1986, 57-
pages?
- J.M. Tien,
K. El-Tell,
G.R. Simons Improved formulations to the hierarchical health facility location-
allocation problem. published as: Tien, J.M.; El-Tell, K.; Simons, G.R
"Improved formulations to the hierarchical health facility location-
allocation problem," *IEEE Transactions on Systems, Man, and*
Cybernetics 13: 1983, 1128-1132.

Monday p.m., session 2

Dual-Based Approaches

- R. Wendell,
E. Petterson A Dual approach for obtaining lower bounds to the Weber problem.
Journal of Regional Science 24: 1984, 219-228.
- M.L. Chen,
R.L. Francis,
T.J. Lowe Network location problems: exploiting block structures. published as:
Chen, M.L.; Francis, R.L.; Lowe, T.J. "The one-center problem:
exploiting block structure," *Transportation Science* vol?: 1988, page?
- P. Hanjoul,
D. Peeters Comparison of some public facility location problems.
- D.K. Kulshrestha Duality with distant point and median of a graph.

Tuesday a.m., session 1

Location-Routing Problems

- Z. Drezner,
G. Steiner,
G.O. Wesolowsky A location problem with tours. published as: Drezner, Z.; Steiner, G.;
Wesolowsky, G.O. "One-facility location with rectilinear tour
distances." *Naval Research Logistics Quarterly* 32: 1985, 391-405

G. Laporte,
Y. Norbert,
D. Arpin Capacitated location-routing problems. published as: Laporte, G.;
Norbert, Y.; Arpin, D. "An exact algorithm for solving a capacitated
location-routing problem," *Annals of Operations Research* 6: 1986,
293-310.

O.B.G. Madsen On the use of road network databases in the planning of locational and
routing decisions. not published.

Tuesday a.m., session 2

Location in Various Norms

H. Juel,
R. Love The facility location problem for hyper-rectilinear distances. published
as: Juel, H.; Love, R. "The facility location problem for hyper-
rectilinear distances," *IIE Transactions* 17: 1985, 94-98.

J.F. Thisse,
J.E. Ward,
R.E. Wendell Some properties of location problems with block and round norms.

P.H. Calamai,
A.R. Conn A projected gradient method for l_p -norm location problems. published
as: Calamai, P.H.; Conn, A.R. "A projected Newton method for l_p -
norm location problems." *Mathematical programming* 38: 1987, 75-
109.

Tuesday a.m., session 3

Competitive Locations (re-visited)

D.D. Achabal,
V. Mahajan,
D.A. Schilling Strategic retail location: an analysis of options. not published.

C.M. Hosage,
M.F. Goodchild Discrete space location-allocation solutions from genetic algorithms.
published as: Hosage, C.M.; Goodchild, M.F. "Discrete space
location-allocation solutions from genetic algorithms," *Annals of
Operations Research* 6: 1986, 35-46.