

ISOLDE VI: Lesvos & Chios

ThC: Obnoxious Location and Hazardous Materials

CHAIR: J. Current

- M. Wyman,
M. Kuby A multiobjective location-allocation model for assessing toxic waste processing technologies. published as: Wyman, M.; Kuby, M. "Proactive optimization of toxic waste transportation, location and technology," *Location Science* 3: 1995, 167-185.
- I. Giannikos Locating multiple obnoxious facilities in the plane.
- J. Current,
S. Ratick Risk, equity and efficiency in facility location and transportation of hazardous materials. published as: Current, J.; Ratick, S. "A model to assess risk, equity and efficiency in facility location and transportation of hazardous materials," *Location Science* 3: 1995, 187-201.
- M.C. Fonesca,
M.E. Captivo Location of semiobnoxious facilities: some new methods. not submitted for publication.

ThD: Telecommunications

CHAIR: G. Laporte

- G. Dammico,
U. Mocchi,
G. Pesamosca A facility location problem in a tree hierarchical networks. published as: Dammico, G.; Mocchi, U.; Pesamosca, G. "On the facility location in hierarchical networks," *Studies in Locational Analysis* 6: 1994, 19-30.
- H.A. Eiselt,
M. Gendreau,
G. Laporte Location of facilities on a network subject to a single node failure. published as: Eiselt, H.A.; Gendreau, M.; Laporte, G. "Optimal location of facilities on a network with an unreliable node or link," *Information Processing Letters* 58: 1996, 71-74.
- A. Migdalas,
S.C. Narula Terminal assignment and layout problem in hierarchical communication networks. published as: Migdalas, A.; Narula, S.C. "The combined terminal assignment and layout problem," *Studies in Locational Analysis* 4: 1993, 225-229.

ThE: Planar location

CHAIR: H. Juel

- S.K. Jacobsen,
H. Juel On heuristics for location in the plane. not published.
- E. Carrizosa,
F.R. Fernandez Simpson points in constrained location problems. published as: Carrizosa, E.; Conde, E.; Munoz-Marquez, M.; Puerto, J. "Simpson points in planar problems with locational constraints. The roundnorm

case,” *Mathematics of Operations Research*, to appear, and Carrizosa, E.; Conde, E.; Munoz-Marquez, M.; Puerto, J. “Simpson points in planar B problems with locational constraints. The polyhedron-gauge case,” *Mathematics of Operations Research*, to appear.

FrB: Plant location

CHAIR: K. Jornsten

- I. Correia,
M.E. Captivo Upper and lower bounds for a capacitated plant location problem. published only as: Correia, I.; Captivo, M.E. “Upper and lower bounds for a capacitated plant location problem,” Working paper 14/95, Centro de Investigacao Operacional, Universidade de Lisboa (research center in Operations Research at the University of Lisbon).
- I. Barros,
M. Labbé A general model for the uncapacitated facility and depot location problem. published as: Barros, I.; Labbé, M. “A general model for the uncapacitated facility and depot location problem,” *Location Science* 2: 1994, 173-191.
- K. Jornsten,
K. Holmberg The simplest plant location problem with spatial interaction: an exact formulation and a dual ascent algorithm.

FrC: p-Centre problems

CHAIR: J. Thisse

- A. Tamir The least element property of center location on tree networks with applications to distance and precedence constrained problems. published as: Tamir, A. “The least element property of center location on tree networks with applications to distance and precedence constrained problems,” *Mathematical Programming* 62: 1993, 475-496.
- D. Peeters,
J. Thisse The location of economic activities when the customers have the choice between pick-up and delivery.
- E. Carrizosa,
F. Plastria Planar minquantile and maxcovering location problems. published only as: Carrizosa, E.; Plastria, F. “Polynomial algorithms for parametric minquantile and maxcovering planar location problems with locational constraints,” Report BEIF/47, Vrije Universiteit Brussel, 1992.
- R. Hassin,
D. Morad Computational comparison of algorithms for the p-centre problem.

FrD: Dynamic problems

CHAIR: M. Labbe

- S.L. Hakimi,
M. Labbe,
E.F. Schmeichel Location on time varying networks. not published.
- B.C. Tansel Median location on time dependent networks. submitted to *Computers and Operations Research*; awaiting resply.
- T. Friesz A dynamic network disequilibrium facility location model.

FrE: General

CHAIR: M. Gendreau

- T. Crainic,
M. Gendreau,
G. Laporte A location problem occurring in the field of pavement management. not yet complete.
- V. Stellakou The impact of expansion of the city of Mytilene on the level of access to its public sector facilities and relocation proposals.
- E. Melachrinoudis,
T.P. Cullinane,
S. Benhamou Sensitivity analysis of weighting factors in location problems. published as: Melachrinoudis, E.; Cullinane, T.P.; Benhamou, S. "Sensitivity analysis of weighting factors in location problems," *Studies in Locational Analysis* 4: 1993; eds. B. Boffey, J. Karkazis, pp. 213-217.
- J. Bramel,
D. Simchi-Levi A location based heuristic for general routing problems. published as: Bramel, J.; Simchi-Levi, D. "A location based heuristic for general routing problems," *Operations Research* 43: 1995, 649-660.

SaB(T): Complexity

CHAIR: B. Pelegrin

- D. Hochbaum Complexity and algorithms for layout spacing and compaction of VLSI circuits. not published.
- B. Pelegrin,
L. Canovas On the spherical p-cover problem. published as: Pelegrin, B.; Canovas, L. "On the spherical p-cover problem,," *Studies on Locational Analysis* 4: 1993, 39-43.
- J. Brimberg,
R. Love,
G. Wesolowsky Solving a class of two-dimensional location-allocation problems by dynamic programming. published as: Brimberg, J.; Wesolowsky, G.O. "The rectilinear distance minisum problem with minsum distance constraints," accepted for *Location Science* May, 1995.

SaB(P): Practical Locational Analysis

CHAIR: H. Coccosis

- S. Singh Impact of settlement size and pattern on the locational system of facility distribution. published as: Singh, S. "Impact of settlement size and pattern on the locational system of facility distribution," *Studies in Regional Urban Planning (Selected Papers)* 1: 1994, 57-70.
- H. Kuiper Optimal location patterns in a multi-sector economy.
- D. Peeters,
I. Thomas The effect of spatial structure on location allocation results. published as: Peeters, D.; Thomas, I. "The effect of spatial structure on location allocation results," *Transportation Science* 29: 1995, 366-373.

SaC(T): Theoretical Locational Analysis

CHAIR: P. Hansen

- J. Gromicho,
J. Frenk,
S. Zhang On the optimality criteria of a general class of convex and quasiconvex location problems on the plane. published as: Gromicho, J.; Frenk, J.; Zhang, S. "On the optimality criteria of a general class of convex and quasiconvex location problems on the plane," *Journal of Optimisation Theory and Applications* 89: 1996, 39-63.
- P. Hansen,
F. Roberts An impossibility result in axiomatic location theory.
- K. Rosing,
J. J. van Dijk Estimating the probability of heuristic improvement: a large scale application of extreme value theory. not published.
- S. Zhang,
J. Frenk,
J. Gromicho A deep cut ellipsoid algorithm for convex and quasiconvex programming: theory and application in Location Theory. published as: Zhang, S.; Frenk, J.; Gromicho, J. "A deep cut ellipsoid algorithm for convex programming," *Mathematical Programming* 63: 1994, 83-108.

SaC(P): Decision support systems

CHAIR: J. Climaco

- T. Koutroumanides,
A. Karakos Study of the land-planning distribution of the industrial employment and the employment in basic branches of the services in the thirteen administrative regions of Greece. published as: Koutroumanides, T.; Karakos, A. "Study of the land planning distribution of the industrial employment and the employment in basic branches of the services in the thirteen administrative regions of Greece," *Studies in Regional Urban Planning* 1: 1994, 37-56.

- K. Koutsopoulos,
G. Photis Supporting locational decision making: regionalization of service delivery system.
- J. Coutinho Rodrigues,
J. Climaco A visual interaction decision support environment dedicated to network planning problems. published as: Coutinho Rodriguez, J.; Climaco, J. "A visual interaction decision support environment dedicated to network planning problems," *Studies in Locational Analysis* 6: 1994, 51-70.
- A. Karakos,
T. Koutroumanides Tool for a rational region-making. not published.

MoB: Queuing based and probabilistic models

CHAIR: K. Zografos

- V. Marianov,
C. ReVelle The queuing maximal availability location problem: a model for the siting of emergency vehicles. published as: Marianov, V.; ReVelle, C. "A probabilistic fire protection siting model with joint reliability requirements," *Papers in Regional Science: The Journal of the RSAI* 71: 1992, 217-241.
- E. Carrizosa,
E. Conde,
F. Fernandez,
M. Munoz,
J. Puerto Customer admission policies in queuing-location problems. published as: Carrizosa, E.; Conde, E.; Fernandez, F.; Munoz, M.; Puerto, J. "Admission policies in Loss queueing models with heterogeneous arrivals," *Management Science* accepted for publication.

MoB: Competitive models

CHAIR: H.A.Eiselt

- H.A. Eiselt,
J. Bhadury Reachability and stability of equilibria in competitive location models. published as: Eiselt, H.A.; Bhadury, J. "Stability of Nash equilibria in locational games," *Recherche Opérationnelle/ Operational Research* 29: 1995, 19-33. and Bhadury, J.; Eiselt, H.A. "Reachability of locational Nash equilibria," *Operations Research Spektrum* to appear possibly in 1998.
- D. Serra,
C. ReVelle Market capture by two competitors: the pre-emptive location problem. published as: Serra, D.; ReVelle, C. "Market capture by two competitors: the pre-emptive location problem," *Journal of Regional Science* 34: 1994, 549-561.
- J. Bhadury Competitive location under uncertainty. published as: Bhadury, J. "Competitive location under uncertainty of costs," *Journal of Regional Science*

MoD: Criteria and measures

CHAIR: E. Erkut

- M. Marsh,
D. Schilling
- Foundations of equity measurement in facility siting decisions. published as: Marsh, M.T.; Schilling, D.A. "Foundations of equity measurement in facility siting decisions," *European Journal of Operational Research* 74: 1994,1-17.
- E. Erkut
- Inequality measures for location problems. published as: Erkut, E. "Inequality measures for location problems," *Location Science* 1: 1993, 199-217.
- M. Gendreau,
G. Laporte,
J. Mesa
- A survey of criteria used in the location of subway stations and routes. published as: Gendreau, M.; Laporte, G.; Mesa, J. "Locating rapid transit lines," *Journal of Advanced Transportation* 29: 1995, 145-162.

MoE: Solution methods

CHAIR: M. Daskin

- J. Frenk,
J. Gromicho,
S. Zhang
- General models in min-max continuous location theory and solution techniques. published as: Frenk, J.; Gromicho, J.; Zhang, S. "General models in min-max continuous location theory and solution techniques," *Journal of Optimization Theory and Applications* 89: 1996, 65-89.
- M. Hodgson,
S. Newman
- A GIS approach to eliminating source C aggregation error in p-median models.
- M. Daskin,
P. Jones
- A heuristic approach for complex allocation problems arising in applied facility location modelling. published as: Daskin, M.; Jones, P. "A new approach to solving applied location/allocation problems," *Microcomputers in Civil Engineering* 8: 1993, 409-421.

TuB: Planar location

CHAIR: G. Wesolowsky

- J. Brimberg,
R. Love,
G. Wesolowsky
- The minisum problem with infeasible regions.
- J. Thisse
- The profit-maximising location-production problem in the plane.
- Z. Drezner,
G. Wesolowsky
- Finding the circle or rectangle containing the minimum weight of points.

TuC: Multicriteria location problems

CHAIR: L. Lundqvist

- L. Lundqvist Multicriterai analysis of housing location and infrastructure investments in urban planning.
- C. Ferreira,
J. Climaco,
J. Paixao The Location Covering Problem - a bicriterion interactive approach.
- R. Ramos Dominguez,
J. Sicilia Efficient points in multiobjective networks.
- H. Hamacher,
S. Nickel Efficient algorithm for bicriterial (restricted) planar median location problems. published as: Hamacher, H.; Nickel, S. "Multicriterial planar location problems," *European Journal of Operational Research* 94: 1996, 66-86.

TuD: Stochastic models

CHAIR: J. Mesa

- J. Mesa Stochastic location problems and efficiency.
- E. Carrizosa,
E. Conde,
F. Fernandez,
M. Munoz,
J. Puerto Stochastic facility location problems using approximate average distances. published as: Carrizosa, E.; Conde, E.; Fernandez, F.; Munoz, M.; Puerto, J. "The generalized Weber problem with expected distances," *Recherche Opérationnelle/Operations Research* 29: 1995, 35-57.
- J.A. Moreno,
J.M. Moreno Stochastic procedures for p-center problems. not published.

TuE: Planar Problems

CHAIR: C. ReVelle

- J. Current,
S. Ratick,
C. ReVelle Multiple facility location when the total number of facilities is uncertain. published as: Current, J.; Ratick, S.; ReVelle, C. "Multiple facility location when the total number of facilities is uncertain," *European Journal of Operational Research*
- D. Chhajed,
T. Lowe Solving structural multifacility problems efficiently. published as: Chhajed, D.; Lowe, T.J. "Solving structural multifacility problems efficiently," *Transportation Science* 1995

B. Tansel,
G. Yesilkocen

Polynomially solvable cases of multifacility distance constraints on cyclic networks. published as: Tansel, B.; Yesilkocen, G. "Polynomially solvable cases of multifacility distance constraints on cyclic networks," Research Report IEOR-9311. Dept. of Industrial Engineering, Ankara, Turkey, 1993. submitted to *Operations Research*; still awaiting reply. also included in: Tansel, B.; Yesilkocen, G. "Composite regions of feasibility for certain classes of distance constrained network location problems," *Transportation Science* 30, 148-59.

WeB(T): Global optimisation

CHAIR: B. Jaumard

B. Jaumard

Weber's problem with concave costs.

H. Tuy,
S. Ghannadan,
A. Migdalas,
P. Varbrand

Strongly polynomial algorithm for a production transportation problem with concave cost. published as: Tuy, H.; Ghannadan, S.; Migdalas, A.; Varbrand, P. "A strongly polynomial algorithm for a concave production-transportation problem with a fixed number of nonlinear variables," *Mathematical Programming* 72: 1996, 229-258.

P. Chen,
P. Hansen,
H. Tuy,
B. Jaumard

Solving continuous location problems by D.C. programming.

WeB(T): Plant Locational Analysis

CHAIR: R. Francis

D. Yates,
B. Boffey
R. Francis,
T. Lowe

Planning drainage networks. not published.

Aggregation for the rectilinear distance p-median problem. published as: Francis, R.; Lowe, T. "Row-column aggregation for rectilinear distance p-median problems," *Transportation Science* 1996.

J. Campbell

Single and multiple allocation p-hub median problems. published as: Campbell, J. "Hub location and the p-hub median problem," *Operations Research* 44: 1996, 923-935.

WeC: Solution methods

CHAIR: T. Crainic

- T. Crainic Parallel methods for location problems.
- R. Galvao,
C. ReVelle A lagrangean heuristic for the maximal covering location problem.
published as: Galvao, R.; ReVelle, C. "A lagrangean heuristic for the
maximal covering location problem," *European Journal of Operational
Research* 88: 1996, 114-123.
- G. Megalokonomos,
K. Zografos,
A. Sissouras A linear programming based tree-search algorithm for solving the
inverse center problem with capacity constraints.

WeD: General

CHAIR: J.A. Moreno

- V. Angelis Location of obnoxious facilities.
- K. Zografos A multiobjective model for hazardous waste routing and siting
decisions.

also:

- S. Singh. Agricultural regionalism in India. published as: Singh, S. "Agricultural regionalism in
India," *Studies in Regional Urban Planning* 3: 1994, 247-259.
- E. Melachrinoudis, H. Min A multiobjective airport capacity expansion model. published as:
"Dynamic expansion and location of an airport: a multiple objective approach," *Transportation
Research* to appear.