

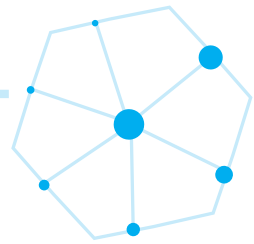


International Symposium On Locational DEcision

ISOLDE2014

NAPLES/CAPRI *italy*

16.20 *June*



In conjunction with XXI EWGLA Meeting

SHORT PROGRAM



the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion (UNEP 2000).

There are many reasons for the increase in illiteracy. One of the reasons is that the population growth rate is higher than the literacy rate. Another reason is that the quality of education is poor. In many countries, the curriculum is not relevant to the needs of the community. In addition, the cost of education is high, and many people cannot afford it.

There are many ways to reduce illiteracy. One way is to improve the quality of education. This can be done by training teachers and updating the curriculum. Another way is to make education more affordable.

There are many other ways to reduce illiteracy. For example, we can use technology to provide education to people who cannot attend school. We can also use community-based approaches to teach people to read and write.

It is important to reduce illiteracy because it is a major barrier to development. People who cannot read and write are often poor and live in rural areas. They are unable to take advantage of the many opportunities that are available to people who can read and write.

There are many things that we can do to reduce illiteracy. We can improve the quality of education, make education more affordable, and use technology to provide education to people who cannot attend school.

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Dear Locators,

I am delighted to welcome you to the ISOLDE XIII Meeting in Naples and Capri. This edition of the conference will be held in conjunction with the XXI Meeting of EURO Working Group on Locational Analysis (EWGLA).

The success of the previous editions of these events witnesses a significant interest of the research community in the topic of Locational Analysis. The current edition includes contributions belonging to different traditional areas of Locational Analysis. The presence of authors from all over the world confirms that ISOLDE meetings represent an extraordinary opportunity to enrich relationships and to share experiences among locators.

I would like to thank all the colleagues of the Committees and the EWGLA board that have supported the organization of the meeting.

**Giuseppe Bruno,
Chair of the Scientific Committee**

ISOLDE 2014 - Hosting University

University of Naples Federico II is one of the oldest and largest universities in the world. Its history dates back nearly eight centuries ago, when Frederick II of Hohenstaufen, King of Sicily and Holy Roman Emperor, established the University of Naples on 5th June 1224. For this reason it is considered the first Studium Generale founded by a public institution. In recognition of its founder, the university was named Federico II in 1987. Nowadays the university offers courses in essentially all academic disciplines, leading to 155 graduate level degrees. Current student enrollments nears 100.000 and the academic personnel, at this time, is 3.100.



SHORT PROGRAM

	MONDAY JUNE 16		TUESDAY
09.00 / 10.00	registrations		hub location I
10.00 / 11.00	opening session		5
11.00 / 11.30	Coffee break		Coffee
11.30 / 13.30	covering models 5		discrete location III 5
13.30 / 15.00	Lunch break		Lunch
15.00 / 16.30	discrete location I 4	continuous location I 4	network design I 4
16.30 / 17.00	Coffee break		Coffee
17.00 / 18.30	discrete location II 5	continuous location II 4	network design II 4
18.30 / 20.00			
20.00 /	welcome reception		

JUNE 17	WEDNESDAY JUNE 18	THURSDAY JUNE 19	FRIDAY JUNE 20
<p>applications I</p> <p>5</p>	<p>Social Excursion and Transfer To Capri Island</p>	<p>discrete location IV</p> <p>5</p>	<p>applications II</p> <p>5</p>
<p>break</p>		<p>Coffee break</p>	<p>Coffee break</p>
<p>logistic and transportation I</p> <p>5</p>		<p>location under uncertainty II</p> <p>5</p>	<p>hub location II</p> <p>5</p>
<p>break</p>		<p>Lunch break</p>	<p>Lunch break</p>
<p>location under uncertainty I</p> <p>4</p>		<p>logistic and transportation II</p> <p>6</p>	<p>competitive location</p> <p>5</p>
<p>break</p>			
<p>continuous location III</p> <p>3</p>		<p>spanish group meeting</p>	<p>closing session</p>
		<p>EWGLA meeting</p>	
		<p>social dinner</p>	

Monday 16 June



09.00-10.00 / Registrations

10.00-11.00 / Opening Session (*Aula Magna*)

11.00-11.30 / Coffee Break

11:30-13:30 / Plenary Session (*Aula Magna*)

Covering Models (*Chair: Stefan Nickel*)

On covering location problems on networks with edge demand.
Oded Berman, Jörg Kalcsics, Dmitry Krass.

Equitable transnational infrastructure planning for natural gas trucking in the EU.
Michael Kuby, *Ismail Capar, Jong-Geun Kim.*

Locating two transfer points on a network with a trip covering criterion and mixed distances.
M. Cruz López-de-los-Mozos, Juan A. Mesa, Anita Schöbel.

Heuristic methods for a facility location problem with covering and connectivity constraints.
Ryosuke Yamanouchi, Mihiro Sasaki.

Maximal coverage: application, solution, evolution and continued significance.
Alan T. Murray

13.30-15.00 / Lunch Break

Restaurant Regina Margherita - Piazza Partenope 19/22

15.00-16.30 / Parallel Sessions**AULA MAGNA / Discrete Location I - Public Sector (Chair: Alfredo Marin)**

Lexicographical min-max approach to special class of location problems.

Jaroslav Janáček

Exact solution methodologies for the capacitated p-center problem.

Hatice Calik, *Oya Karasan, Barbaros Tansel*

New approaches for the discrete ordered median problem.

Martine Labbé, **Diego Ponce**, *Justo Puerto*

A hypergraph multi-exchange heuristic for the single-source capacitated facility location problem.

Maria Paola Scaparra, *Trung Hieu Tran, Jesse O'Hanley*

ROOM A / Continuous Location I (Chair: Timothy Lowe)

An approximation for the kth nearest distance and its application to location analysis.

Masashi Miyagawa

Location problems with k-max functions different approaches for handling outliers.

Teresa Schnepfer, *Kathrin Klamroth*

Duality for convex continuous location problems via multi-composed optimization I.

Gert Wanka, *Oleg Wilfer*

Duality for convex continuous location problems via multi-composed optimization II.

Gert Wanka, **Oleg Wilfer**

16.30-17.00 / Coffee Break

17.00-18.30 / Parallel Sessions

AULA MAGNA / Discrete Location II - Public Sector (Chair: Ioannis Giannikos)

Customers' utility of public service systems.

Marta Janackova, *Alzbeta Szendreyova*

Evaluation of the fairness degree in the public service systems.

Marta Janackova, **Alzbeta Szendreyova**

Impact of the fairness criteria on the solution of the facility location problem on large networks.

Michal Kohani, *Jaroslav Janacek, Lubos Buzna*

Locating temporary shelter areas after an earthquake: a case for Turkey.

Bahar Yetis Kara, *Firat Kılci, Burçin Bozkaya*

Mathematical Models for the territorial re-organization of a public service.

Giuseppe Bruno, **Andrea Genovese**, *Carmela Piccolo*

ROOM A / Continuous Location II (Chair: Alan Murray)

Continuous location under refraction

Victor Blanco, *Justo Puerto, Diego Ponce*

On solving some classes of continuous multi-facility location problems.

Justo Puerto, *Victor Blanco, Safae Elhaj Ben Ali*

Continuous plane as an approximation to network space.

Takeshi Koshizuka

On locating median lines to approximate objects in the plane.

Jack Brimberg, **Robert Schieweck**, *Anita Schöbel*

Welcome Reception, 20.00

Hotel Santa Lucia,
located just few meters
from the conference venue in Naples.

Address

Via Partenope, 46 - 80121 Napoli

Tel. +39 081 764 06 66



Tuesday 17 June



09.00-11.00 / Parallel Sessions

AULA MAGNA / Hub Location I (Chair: Sibel Alumur)

A capacitated hub location model for WIFI data reading in a water supply company.

Gonzalez-R. Pedro L., Canca David, Caro Jimenez Salvador

Hub location with time-definite delivery under congestion.

Sibel A. Alumur, Stefan Nickel, **Brita Rohrbeck**, Francisco Saldanha-da-Gama

Locating P+R nodes in an agglomeration: the hypergraph and genetic algorithms.

Krzysztof Sep, Jarosław Stanczak, **Jan W. Owsinski**

An exact method for the capacitated single allocation hub location-routing problem.

Mi Zhang, Nathalie Bostel, Pierre Dejax, Minh Hoàng Hà

A capacitated containerized hub location problem in multimodal networks.

Daniela Ambrosino, **Anna Sciomachen**

ROOM A / Applications I (Chair: Mihiro Sasaki)

Location intelligence empowers analytical capabilities for italian healthcare.

Edward William Gnudi, Marco Vignoli

Better decisions for retail companies with spatial data.

Marco Vignoli, Edward William Gnudi

Computational procedure for location sensor network monitoring volcanic ash.

Francesco Malmo, Domenico Maria Del Giudice, Claudio Sterle

Solving a scheduling problem for rebuilding bridges.

Shung Koichi

Distribution of hospital bed supply-demand balance in a region.

Takamori Ukai, Mihiro Sasaki

11.00-11.30 / Coffee Break

11:30-13:30 / Parallel Sessions

AULA MAGNA / Discrete Location III (Chair: Michael Kuby)

The maximum capture problem with flexible substitution patterns

Knut Haase, *Sven Müller, David Hensher, Mirko Hoppe*

Formulation and lagrangian heuristics for large-scale dynamic facility location with generalized modular capacities

Sanjay Dominik Jena, *Jean-François Cordeau, Bernard Gendron*

Stamp rally location problems

Yuichiro Miyamoto, *Ken-ichi Tanaka, Ryuhei Miyashiro*

Ambulance location problems with joint distribution of traveling time and distance

Hozumi Morohosi, **Takehiro Furuta**

Comparison of formulations for the two-level uncapacitated facility location problem with single-assignment constraints

Bernard Gendron, *Paul-Virak Khuong, Frédéric Semet*

ROOM A / Logistics and Transportation I (Chair: Teodor Gabriel Crainic)

An adaptive large neighborhood search algorithm for a selective and periodic inventory routing problem.

Deniz Aksen, *Onur Kaya, F. Sibel Salman, Özge Tüncel*

Facility location-evacuation optimization models in pre-disaster situation.

Andrés Bronfman, **Pamela P. Alvarez**

Arc routing for connectivity in disaster response.

F. Sibel Salman, *Vahid Akbarighadkolaei*

A stochastic location-routing model for prepositioning and distributing emergency supplies.

Yidong Zhang, *Aakil M. Caunhye, Mingzhe Li, Xiaofeng Nie*

Flow intercepting facility location and routing (FIFLOR) for the design of a city logistic system.

Teodor Gabriel Crainic, Antonio Sforza, Claudio Sterle, Maurizio Boccia

13.30-15.00 / Lunch Break

Restaurant Regina Margherita - Piazza Partenope 19/22

15.00-16.30 / Parallel Sessions**AULA MAGNA - Network Design I (Chair: Olivier Peton)**

Fuzzy logic based decision making on routing-allocation for network virtualization solutions

Julija Asmuss, *Gunars Lauks*

Logistics network design with product quality and responsiveness constraints

Marlies de Keizer, *Martin Grunow, Renzo Akkerman, Jacqueline Bloemhof, René Haijema, Jack van der Vorst*

A lagrangean decomposition approach for capacitated relay network design with imbalance constraints

Halit Üster, *Panitan Kewcharoenwong*

Finding the k-best locations in a network

Horst W. Hamacher, *Anika Kinscherff, Julia Unfricht*

ROOM A / Location under Uncertainty I (Chair: Dmitry Krass)

Deciding when to build instead of when to open: a simulation approach to a dynamic location problem under uncertainty

Joana Dias

Modeling uncertainty in closed loop supply chain design

M. Isabel Gomes, *Susana Baptista, Ana P. Barbosa-Póvoa, Laureano F. Escudero*

Dynamic location problem under uncertainty with a regret based measure of robustness

Maria do Céu Marques, *Joana Dias*

New risk concepts for supply chain design models.

Iris Heckmann, *Stefan Nickel, Francisco Saldanha da Gama*

16.30 -17.00 Coffee Break

17.00-18.30 / Parallel Sessions

AULA MAGNA - Network Design II (Chair: Jesse O'Hanley)

A survey of optimization models and methods for sustainable supply chain network design
Majid Eskandarpour, Pierre Dejax, Joe Miemczyk, Olivier Péton

The logistics network design model with carbon footprint emission and web application development
Lei Hao, Mikio Kubo

Modeling of a supply chain network design problem in the construction sector
Olivier Péton, Minh Hoang Ha, Thomas Vincent

Dynamic design and redesign of multi-echelon, multi-commodity logistics networks with outsourcing opportunities: A computational study
M. João Cortinhal, M. João Lopes, **M. Teresa Melo**

ROOM A / Continuous Location III (Chair: Justo Puerto)

A location-based approach for robust optimization.
Marc Goerigk, **Anita Schöbel**

Urban security and bicriteria time-dependent planar location problems.
Horst W. Hamacher, **Andrea Maier**, **Aleksandra Kovtaniuk**

A biased random key genetic algorithm for locating sensors.
Ana S. Carvalho, **M. Eugénia Captivo**, António J. Rodrigues



Wednesday, June 18

Social Excursion to Pompei

You will be involved in a suggestive guided tour through the ancient roman city buried by Vesuvius in the 79 A.D. eruption with the possibility to visit the most fascinating places such as the Forum, the houses, temples, luxurious baths, the brothel called "Lupanare", the two theatres, and to discover the secrets of the Villa dei Misteri.

Schedule

8.30	Departure from conference venue in Naples
10.00 - 12.30	Guided Tour in Pompei
13.00 - 15.00	Lunch in Pompei
15.30	Departure, towards Naples (Molo Beverello)
16.30	Transfer to Capri Island



Thursday 19 June



09.00-11.00 / Plenary Sessions

AULA MAGNA / Discrete Location IV (Chair: Vladimir Marianov)

Feature selection via Mixed Integer Linear Programming

Martine Labbè, Antonio M. Rodríguez-Chía

Selecting distances in clustering.

Sergio García, *Stefano Benati, Justo Puerto*

Solving partitioning problems in location theory and cluster analysis with CLUSTOPT.

Gilles Caporossi, Pierre Hansen, Sylvain Perron

LP relaxation for the reliability fixed-charge location problem.

Javier Alcaraz, Mercedes Landete, Juan F. Monge, José L. Sainz-Pardo

Locating branching nodes in a graph.

Alfredo Marín

11.00-11.30 / Coffee Break

11.30-13.30 / Plenary Sessions

AULA MAGNA / Location under uncertainty II (Chair: Francisco Saldanha da Gama)

Stochastic location allocation modeling for primary health care facility network design.

Panagiotis Mitropoulos, Ioannis Mitropoulos, Ioannis Giannikos

Location-allocation problems with flooding scenarios: minimax versus average case.

Kathrin Klamroth, *Markus Kaiser*

Mitigating hard capacity constraints in stochastic facility location modeling.

Kayse Lee Maass, Mark S. Daskin, Siqian Shen

A sensor location model for bayesian estimation of stochastic route flows.

Ning Wang, Pitu Mirchandani

Pricing, location and capacity planning with in stochastic location models.

Dmitry Krass, *Oded Berman, Dehui Tong*

13.30-15.00 / Lunch Break

Hotel La Residenza - Via F. Serena, 22

15.00-17.00 / Plenary Sessions

AULA MAGNA - Logistics and Transportation II (Chair: Gilbert Laporte)

Locating rest and maintenance facilities in railway rapid transit systems.

David Canca, *Eva Barrena, Gilbert Laporte*

Coverage measures for rapid transit networks

Maria Barbati, Giuseppe Bruno, Mariano Frattini

Tariff zone planning for public transport companies.

Sven Müller, *Knut Haase, Michael Klier*

Building train schedules from frequency maps.

Alejandro Zarzo, *David Canca, Eva Barrena*

A new model for arc territory design.

Elena Fernández, Gabriela Garza-Ayala, José Luis González-Velarde, Roger Z. Ríos-Mercado

Integrated location – service network design.

Teodor Gabriel Crainic, *Mike Hewitt, Michel Toulouse, Duc Minh Vu*

17.00-17.30 / Spanish Group Meeting on LA

Friday 20 June



09.00-11.00 / Plenary Sessions

AULA MAGNA / Applications II (Chair: H.A. Eiselt)

Demand point location aggregation error analysis

Timothy Lowe, *Richard Francis*

Designing irrigation networks by using location criteria

Juan A. Mesa, **Francisco A. Ortega**, *Miguel A. Pozo*

Coverage optimization in a tool for railway infrastructure protection

Antonio Sforza, *Claudio Sterle*

Modelling and planning public cultural schedules for efficient use of resources: application to Andalusia.

Francisco A. Ortega, **Miguel A. Pozo**, *Justo Puerto*

Public facility location using dispersion, population, and equity criteria.

Rajan Batta, *Miguel Lejeune*, *Srinivas Prasad*

11.00-11.30 / Coffee Break

11.30-13.30 / Plenary Sessions

AULA MAGNA / Hub Location II (Chair: Mark Daskin)

Multi-period hub network design problems with modular capacities.

Sibel A. Alumur, *Stefan Nickel*, **Francisco Saldanha da Gama**, *Yusuf Seçer*

Multi-product capacitated single-allocation hub location problems.

Isabel Correia, **Stefan Nickel**, *Francisco Saldanha da Gama*

The unreliable hub location problem: formulation and solution techniques.

Jesse R. O'Hanley, *Trung Hieu Tran*, *M. Paola Scaparra*

The ordered median tree of hubs location problem.

Justo Puerto, **Ana B. Ramos**, *Antonio M. Rodríguez-Chía*

Hub location and the design of capacitated intermodal hub networks with different vehicle types.

Elif Zeynep Serper, **Sibel A. Alumur**

13.30-15.00 / Lunch Break

Hotel La Residenza - Via F. Serena, 22

15.00-17.00 / Plenary Sessions

AULA MAGNA / Competitive Location (Chair: *Martine Labbè*)

Competitive facility location and design problem: identifying optimal designs.

Robert Abollian, *Oded Berman, Dmitry Krass*

Competitive location models with delivered prices and asymmetric cost structures.

H.A. Eiselt, *Vladimir Marianov*

Advancing competitive facility network planning.

Hugo M. Repolho, *João F. Bigotte, António Pais Antunes*

An empirical validation of customer retail patronization models.

Seda Yanik, **Burcin Bozkaya**, *Vivek K. Singh, Alex Pentland*

Agglomeration in competitive location models.

Vladimir Marianov, *H.A. Eiselt*

17.00-17.30 / Closing Session

17.30-18.00 / EWGLA Meeting

Social Dinner, 8.30 pm

The social dinner will be held in Capri, at the Capri's Restaurant.

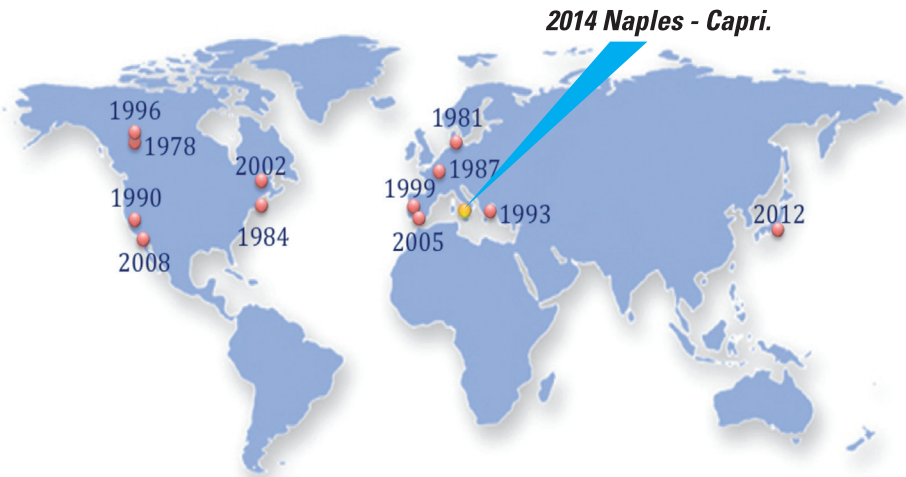
Address

Via Roma, 38 - 80073 Capri

Tel. +39 081.837.7108



ISOLDE - From 1981 to 2014



See you at 2017 ISOLDE Meeting

Contacts

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Carmen Piccolo +39 340 2320124

In order to facilitate your staying during the ISOLDE Meeting time, the Agency Ischia Congressi will assist participants for the organization of social and cultural activities. Information about optional activities are available at conference desk.

Ischia Congressi contact

Salvatore Impagliazzo +39 338 4819436

FIFA WORLD CUP 2014

Monday, 16

13.00 (18.00) *Germany - Portugal*

16.00 (21.00) *Iran - Nigeria*

19.00 (24.00) *Ghana - USA*

Tuesday, 17

13.00 (18.00) *Belgium - Algeria*

16.00 (21.00) *Brazil - Mexico*

18.00 (24.00) *Russia - Korea Republic*

Wednesday, 18

13.00 (18.00) *Australia - Netherlands*

16.00 (21.00) *Spain - Chile*

18.00 (24.00) *Cameroon - Croatia*

Thursday, 19

13.00 (18.00) *Colombia - Côte d'Ivoire*

16.00 (21.00) *Uruguay - England*

19.00 (24.00) *Japan - Greece*

Friday, 20

13.00 (18.00) *Italy - Costa Rica*

16.00 (21.00) *Switzerland - France*

19.00 (24.00) *Honduras - Ecuador*

Brazilian hour (Italian hour)





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REGIONE CAMPANIA



UNIVERSITÀ DI NAPOLI FEDERICO II
Dipartimento di
Ingegneria Industriale



UNIVERSITÀ DI NAPOLI PARTHENOPE



EURO WORKING GROUP
ON LOCATIONAL ANALYSIS



ASSOCIAZIONE ITALIANA
RICERCA OPERATIVA

