

SECOND INTERNATIONAL CONFERENCE ON PERFORMANCE-BASED DESIGN IN EARTHQUAKE GEOTECHNICAL ENGINEERING

TAORMINA CONFERENCE CENTER - May 28-30, 2012 TAORMINA (ITALY)

ORGANISED BY



ISSMGE Technical Committee of Geotechnical Earthquake Engineering and Associated Problems (TC203)

CO-ORGANISED BY



European Technical Committee ERTC-12 on Application of Eurocode 8



Italian Geotechnical Society

SECOND BULLETIN - February 2012

http://www.2pbd-taormina.org/

WELCOME MESSAGE

The Technical Committee of Geotechnical Earthquake Engineering and Associated Problems (TC203) of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) and the Italian Geotechnical Association (AGI) are delighted to welcome all distinguished members of our societies in the Second International Conference on "Performance-Based Design in Earthquake Geotechnical Engineering", which will be held in Italy in the marvellous city of Taormina in Sicily, from 28th to 30th May 2012.

Following the footsteps of the most successful first PBD conference held in Tokyo in 2009 and the 5th International Conference in Geotechnical Earthquake Engineering held in 2010 in Santiago, Chile, the Taormina PBD 2012 conference will offer an ideal forum to present and discuss the most recent advances and progresses in Geotechnical Earthquake Engineering and in particular in the Performance Based Design of structures. The Conference is organised around several state of the art and keynote lectures given by distinguished international experts and over 150 peer review papers in different topics. Special sessions are devoted to the mega Tohuku 2011 earthquake in Japan, the two large devastating earthquakes in New Zealand (2011) and the Abruzzo 2009 earthquake. Besides the more technical topics, the conference will also give us the opportunity to discuss new trends in Earthquake Geotechnical Engineering and Performance Based Design related to global sustainability and life cycle analysis.

Taormina is an ideal place to host this important event. Located at the east coast of Sicily in the Ionian Sea, midway between the cities of Catania and Messina has a very long history founded 25 centuries ago as an important ancient Greek colony. The present medieval town with marvellous gardens, important cultural activities, beautiful sceneries, with the majestic Mount Etna's volcano nearby and important roman remains, including the famous Greek-Roman theatre, is a very popular colourful and vibrant tourist destination since 19th century. We are sure that in Taormina, besides the interesting conference, you will have the chance to savour the renowned Italian hospitality, pleasant weather, the exquisite 'Italian' food and unique archaeological sites, cultural events and surrounding sceneries.

Looking forward to welcome you in Taormina in May 2012,

Prof. Kyriazis Pitilakis

Prof. Stefano Aversa

Prof. Michele Maugeri

INTERNATIONAL SCIENTIFIC COMMITTEE

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Chairman of the Conference:

Prof. Michele Maugeri Department of Civil and Environmental Engineering - Università di Catania Viale A. Doria, 6 95125 – Catania (ITALY) tel. +39 095 7382205 fax +39 095 7382298 <u>mmaugeri@dica.unict.it</u>

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Submission of abstracts and papers by e-mail:

mmaugeri@dica.unict.it and agiroma@iol.it

TOPICS

- Case histories on ground motion and site effects;
- Soil investigation with field and laboratory testing;
- Dynamic Characterisation and modeling;
- Methodologies for PBD and codes;
- Physical modeling by Shaking table test and centrifuge test;
- Liquefaction;
- Numerical analyses for PBD;
- Slopes;
- Embankments, landfills and dams;
- Shallow foundations
- Pile foundations;
- Soil-structure interaction;
- Retaining wall and wharf structures;
- Earth reinforced retaining wall;
- Underground structures.

WORKSHOP

Round Robin Tunnel Centrifuge Test

SPCIAL SESSIONS

- The 2009 Abruzzo Earthquake
- The 2011 New Zealand Earthquake
- The 2011 Tohoku Earthquake and Tsunami

SYMPOSIUM IN HONOUR OF PROF. SHAMSHER PRAKASH May 29, 2012

STATE-OF-THE-ART LECTURES

Kenji Ishihara *Chuo University, Tokyo, Japan* New Challenges in Evaluating Liquefaction-Induced Damage

Michele Jamiolkowski *Politecnico di Torino, Torino, Italy* Role of Geophysical Testing in Geotechnical Site Characterization

Gian Michele CalviUniversità di Pavia, Pavia, ItalySeismic displacement based design of structures: relevance of soil structure interaction

George Gazetas National Technical University of Athens, Athens, Greece Nonlinear Soil-Foundation-Structure Interaction

Kyriazis Pitilakis Aristotle University of Thessaloniki, Thessaloniki, Greece Performance and seismic design of underground structures

Replication of RANKINE LECTURE (to be confirmed)

Malcolm Bolton University of Cambridge, UK Performance Based Design in Geotechnical Engineering

KEYNOTE LECTURES

Atilla Ansal *Ozyegin University, Istanbul, Turkey* Site Specific Response Analysis and Design Earthquake Characteristics

Anastasios Anastasiadis Aristotle University of Thessaloniki, Thessaloniki, Greece Site Classification and spectral amplification for seismic code provisions

Kenneth H. Stokoe University of Texas at Austin, Austin, USA Dynamic Characterisation

Takaji Kokusho *Chuo University, Tokyo, Japan* Aging effect of Sand Liquefaction observed during Recent earthquake and Basic Laboratory Studies

Paul W. Mayne Georgia Institute of Technology, Atlanta, USA Field and Laboratory Testing

Steve L. Kramer University of California, Berkeley, USA Performance-Based Design Methodologies

Ahmed Elgamal University of California, San Diego, USA Large-Scale Modeling of Ground and Soil-Structure Earthquake Response

Ross W. Boulanger University of California, Davis, USA Liquefaction-induced strength loss and deformation: Simulation and design Jonathan D. Bray University of California, Berkeley, USA Liquefaction-Induced Building Movements

Ellen M. Rathje University of Texas at Austin, Austin, USA Probabilistic assessment of the performance of slopes

Ikuo Towhata University of Tokyo, Tokyo, Japan Seismic Performance of River Levees; Experience and Prediction

Claudio Di Prisco *Politecnico di Milano, Milano, Italy* Seismic response of shallow footings: a promising application for the macro-element approach

Kohji Tokimatsu *Tokyo Institute of Technology, Tokyo, Japan* Liquefaction-induced damage to buildings in the 2011 Tohoku Pacific Ocean earthquake

Susumu Yasuda *Tokyo Denki University, Tokyo, Japan* Allowable settlement and inclination of houses defined after the 2011 Tohoku - Pacific Ocean Earthquake in Japan George Bouckovalas

National Technical University of Athens, Athens, Greece Kinematic interaction of piles into laterally spreading soil

Alain Pecker *Ecole Nationale des Ponts et Chaussées, Paris, France* The role of non-linear dynamic soil-foundation interaction on the seismic response of structures Michele Maugeri *Università di Catania, Catania, Italy* Retaining Walls

Yoshihisa Miyata National Defense Academy of Japan, Yokosuka, Japan Performance of Reinforced Soil Walls during the Recent Great Earthquakes in Japan and Geo-Risk based Design

Edward Kavazanjian University of Texas at Austin, Austin, USA Performance Based Seismic Design of Landfill Containment Systems

Sebastiano Rampello Università La Sapienza, Roma, Italy Predicting the seismic behaviour of the Messina Bridge foundations

Rodolfo Saragoni *Universidad de Chile, Santiago, Chile* Earthquake Performance Design of Dams using Destructive Potential Factors

SPECIAL SESSIONS

SPECIAL SESSION 1 The 2009 Abruzzo Earthquake

CONVENORS: S. Aversa and M. Maugeri Panelist: Giuseppe Lanzo, Università La Sapienza, Roma, Italy Sebastiano Foti, Politecnico di Torino, Italy Annarita d'Onofrio, Università Federico II Napoli, Italy Paola Monaco Università di L'Aquila, Italy

SPECIAL SESSION 2 The 2011 Tohoku Earthquake and Tsunami

CONVENORS: K. Ishihara, T. Kokusho, S. Yasuda Panelist: to be nominated by the Convenors

SPECIAL SESSION 3 The 2011 New Zealand Earthquake

CONVENORS: Misko Cubrinovski, Michael Pender Panelist: to be nominated by the Convenors

WORKSHOP

Round Robin Tunnel Centrifuge Test CONVENOR: F. Silvestri Panelist: to be nominated by the Convenor

SYMPOSIUM IN HONOUR OF PROF. SHAMSHER PRAKASH

CHAIRMAN: PEDRO SECO e PINTO CO-CHAIRMAN: MICHELE MAUGERI

Opening address:Pedro Seco e PintoInvited speakers:Liam FinnGeorge GazetasSanjeev KumarVijay K PuriSally PrakashPrakash brotherShamsher PrakashClosure:Michele Maugeri

PROGRAM

MONDAY 28			
09:00 -09:45	WELCOME OPENING CEREMONY		
	STATE OF ART LECTURE 1		
09:45 -10:30	New Challenges in Evaluating Liquefaction-Induced Damage KENJI ISHIHARA (JAPAN)		
10:30 -11:00	KEYNOTE LECTURE 1 Site Specific Response Analysis and Design Earthquake Characteristics ATILLA ANSAL	KEYNOTE LECTURE 4 Field and Laboratory Testing PAUL MAYNE	KEYNOTE LECTURE 6 Performance-Based Design Methodologies STEVE KRAMER
11.00 -11.30		Coffee Break	
		Oral Presentations	
	SESSION 1a Ground Motion and site effects	SESSION 3 Dynamic Characterization and modeling	SESSION 4 Methodologies for PBD
	SESSION 1a	SESSION 3	SESSION 4
11:30 -13:00	Title and Authors presentation	Title and Authors presentation	Title and Authors presentation
13.00 -14.00		Lunch	
14:00 -14:45	STATE OF ART LECTURE 2 Role of Geophysical Testing in Geotechnical Site Characterization MICHELE JAMIOLKOWSKI		
14:45 -15:15	KEYNOTE LECTURE 2 Site Classification and spectral amplification for seismic code provisions A. ANASTASIADIS	KEYNOTE LECTURE 7 Large-Scale Modeling of Ground and Soil-Structure Earthquake Response A. ELGAMAL	KEYNOTE LECTURE 8 Liquefaction-induced strength loss and deformation: Simulation and design R. BOULANGER
	SESSION 2a Soil Investigation and laboratory testing	SESSION 5 Physical Modeling by Shaking Table Tests and Centrifuge Tests	KEYNOTE LECTURE 5 Aging effect of Sand Liquefaction observed during Recent earthquake and Basic Laboratory Studies T. Kokusho
	SESSION 2	SESSION 5	SESSION 6a Liquefaction
15:15 -16:45	Title and Authors presentation	Title and Authors presentation	Title and Authors presentation
16.45 -17.15		Coffee Break Oral Presentations	
	KEYNOTE LECTURE 3	WORKSHOP	
	Dynamic Characterisation KEN STOKOE	Round Robin Tunnel Centrifuge Test Convenor: F. SILVESTRI	KEYNOTE LECTURE 9 Liquefaction-Induced Building Movements
17:15 -18:30	SESSION 2b Soil Investigation and laboratory testing	Panelist Presentations	SESSION 6b Liquefaction
	Title and Authors presentation		Title and Authors presentation

TUESDAY 29			
09:00 -09:45	STATE OF ART LECTURE 3 Seismic displacement based design of structures: relevance of soil structure interaction GIAN MICHELE CALVI (ITALY)		
	STATE OF ART LECTURE 4		
09:45 -10:30	Nonlinear Soil-Foundation-Structure Interaction G. GAZETAS		
10:30 -11:00	KEYNOTE LECTURE 10 Probabilistic assessment of the performance of slopes E. RATHJE	KEYNOTE LECTURE 11 Seismic Performance of River Levees; Experience and Prediction I. TOWHATA	KEYNOTE LECTURE 12 Seismic response of shallow footings: a promising application for the macro-element approach C. DI PRISCO
11.00 -11.30		Coffee Break	
		Oral Presentations	
	SESSION 8 Slopes	SESSION 9 Embankments, Landfills and Dams	SESSION 7 Numerical Analysis for PBD
	SESSION 8	SESSION 9	SESSION 7
11:30 -13:00	Title and Authors presentation	Title and Authors presentation	Title and Authors presentation
13.00 -14.00	Lunch		
14:00 -14:30	KEYNOTE LECTURE 13 Liquefaction-induced damage to buildings in the 2011 Tohoku Pacific Ocean earthquake K. TOKIMATSU	SPECIAL SESSION 1 The 2009 Abruzzo Earthquake CONVENORS S. Aversa M. Maugeri	SESSION 1b Ground Motion and site effects
14:30 -15:00	KEYNOTE LECTURE 21 Earthquake Performance Design of Dams of Dams using Destructive Potential Factor R. SARAGONI	Panelist Presentations	Title and Authors presentation
15:00 - 16:30	SYMPOSIUM IN HONOR OF PROFESSOR SHAMSHER PRAKASH Chairman PEDRO SECO Y PINTO Panelist Presentations		
16.30 -17.00		Coffee Break	
17:00 -18:30	SPECIAL SESSION 2 The 2011 Tōhoku Earthquake and Tsunami CONVENORS ISHIHARA, KOKUSHO, YASUDA Panelist Presentations		

		WEDNESDAY 30	
09:00 - 09:45	STATE OF ART LECTURE 5 Performance and seismic design of underground structures KYRIAZIS PITILAKIS (GREECE)		
09:45 -10:15	KEYNOTE LECTURE 20 Predicting the seismic behaviour of the Messina Bridge foundations S. RAMPELLO	KEYNOTE LECTURE 15 Kinematic interaction of piles into laterally spreading soil G. BOUCKOVALAS	KEYNOTE LECTURE 16 The role of non-linear dynamic soil-foundation interaction on the seismic response of structures A. PECKER
10.15 - 10.45	KEYNOTE LECTURE 14 Allowable settlement and inclination of houses defined after the 2011 Tohoku - Pacific Ocean Earthquake in Japan S. YASUDA	SESSION 11a Pile foundations Title and Authors presentation	SESSION 12a Soil Structure interaction Title and Authors presentation
10:45 -11:15		Coffee Break	
		Oral Presentations	
	SESSION 10 Shallow Foundation	SESSION 11b Pile foundations	SESSION 12b Soil Structure interaction
	SESSION 10	SESSION 11	SESSION 12
11:15 -13:00	Title and Authors presentation	Title and Authors presentation	Title and Authors presentation
13.00 -14.00		Lunch	
14:00 -14:30	KEYNOTE LECTURE 17 Performance Based Design of retaining walls M. MAUGERI	KEYNOTE LECTURE 18 Performance of Reinforced Soil Walls during the Recent Great Earthquakes in Japan and Geo-Risk based Design Y. MIYATA	SESSION 19 Performance Based Seismic Design of Landfill Containment Systems E. KAVAZANJIAN
	SESSION 13 Retaining wall	SESSION 14 Earth Reinforced retaining wall	SESSION 15 Underground Structures
14:30 -16:00	SESSION 13	SESSION 14	SESSION 15
	Title and Authors presentation	Title and Authors presentation	Title and Authors presentation
16.00 -17.30	SPECIAL SESSION 3 The 2011 New Zealand Earthquake Convenors: M. Pender, M. Kubrinovski PANELIST PRESENTATIONS		
17.30 -18.00		CLOSING CERIMONY	

ACCOMODATION

HOTEL INFORMATION

The Congressi & Taormina has reserved a sufficient number of hotel rooms in 5*, 4* and 3* hotels at competitive rates. Please note that in May is absolute peak season in Taormina and therefore early hotel booking is highly recommended!

RESERVATION

To reserve your room, please complete the hotel accommodation form. The reservation will be confirmed on a first come, first served basis. The Congressi & Taormina, will try to meet all your accommodation requests. However, we reserve the right to make your hotel reservation at the best available alternative should your preferred hotel category be fully booked. In order to guarantee your reservation is required a payment of a one-night deposit. The hotel reservation deadline is April 27th, 2012. After this date, room availability cannot be guaranteed.

PAYMENT

Important: you are reminded that bank charges are made and are deducted by the bank before passing to Congressi&Taormina; it is therefore essential that all transfers of money include any surcharge. Deductions suffered by Congressi & Taormina will be deducted from the voucher. Payment can be effected only by Bank transfer and it must be made to Congressi & Taormina, clearly stating the participant's name and address. Payment after the congress is not possible. BANK TRANSFER made out to "Congressi & Taormina" Monte dei Paschi di Siena - Taormina Agency - Italy Account No. 000000291730 IBAN: IT 58 Z 01030 82590 000000291730 SWIFT code: PASCITM1MEY

Remember to send a copy of transfer receipt at the Congressi & Taormina at the following fax no.+39.0942.24251

CONFIRMATION

After receipt of your reservation form and hotel deposit of one night's stay, you will receive a voucher by e.mail in which there will be all your hotel reservation information.

INVOICE

Upon checkout, the deposit paid will be deducted from your hotel bill. The official invoice/receipt will be issued by the hotel upon your departure.

CANCELLATION AND REFUNDS

- Notification of cancellation must be sent in writing to the Congressi & Taormina.
- In case of no show, the hotel will not refund the deposit and the reservation will be automatically cancelled.
- Your guaranteed reservation is only for the date of arrival. If you fail to notify the
 organizing secretariat that you are arriving on a different day, you will lose your room
 and deposit.
- Cancellations will be accepted until April 27th 2012 with a refund of 100% of the one night's deposit (less € 20,00 of agency fee and administrative charge).
- · No refunds will be made for cancellations received after April 27th, 2012.
- · All approved refunds will be processed 60 days after the Meeting.

Should you need any assistance please contact:

Congressi & Taormina - Via Miss Mabel Hill, 4 - 98039 Taromina (Me) – ITALY ph. 1 + 39 094224293 • fax + 39 094224251 - e-mail: info@congressitaormina.it

REGISTRATION FEES

Full registration and payment before April 6 th 2012		
ISSMGE member	€ 600,00	
Non member	€ 660,00	
MSc and PhD Students € 300		
Full registration and payment after April 6 th 2012		
ISSMGE member	€ 650,00	
Non member € 720,00		
MSc and PhD Students € 330,00		
Tickets for social dinner (not included in the full registration)		
Gala Dinner on Tuesday 29 th May 2012 € 110,00		

Full registration fees include:

- admission to the Conference

- proceedings (CD)
 bag
 lunches and coffee breaks during the Conference

Accompanyng persons programme		
 Tuesday, May 29th, 2012 Agrigento - Piazza Armenia departure time 6.30 am Etna Sunset - departure time 3.00 pm Panarea - Stromboli - departure time 10.00 am 	Cost per person € 50,00 Cost per person € 79,00 Cost per person € 86,00	
 Wednesday, May 30th, 2012 Etna Round - Alcantara - departure time 7.00 am Lipari - Vulcano - departure time 7.00 am 	Cost per person € 42,00-87,00 ⁽¹⁾ Cost per person € 66,00	
Children up to 12 years, 50% discount (1) Ascent included	The cost of the tours includes: all ground and sea transportation services of tour leader and local guide where specified, taxes. The cost of the tours does not include: Drinks, meal and extras in general. Entry fees.	

THE CONFERENCE CENTER

Conferences, conventions, meetings in the heart of Taormina.

San Domenico Palace Hotel offers charming meeting halls and a well-equipped Convention Centre for every meeting. The 5-star deluxe convention area of Taormina, situated in the charming setting of the fifteenth century convent, hosts up to a maximum of 400 people.

The unique ambience, the modern technical equipment, the refined efficiency of the service and the



organisation, the exquisite gastronomic quality: these are the trump card of Taormina's 5-star deluxe for a meeting which would definitely be successful and fascinating.

Besides the Sala Plenaria, the hotel offers four other meeting halls within the Convention Centre and which accomodate a total of 150 people.



THE HOTEL

Welcome to Taormina. Welcome to the San Domenico Palace Hotel: a natural terrace among gardens in perpetual bloom overlooking the sea.

The ancient monastery's cloisters reveal corners of rare beauty. Reality turns into a fascinating fairy tale made of vivid sunlight rays, light sea breezes, scents of citrus fruits.

The cordial hospitality of the hotel's antique walls, the elegance of its spacious salons, a manicured garden, a mosaic of flowers and colours, the brightness of precious table linen, the nobility of old silver, the glimmer of candles, rich, sumptuous buffets... An enchanting setting of rare magic, a jewel, a place of joy and precious emotions, to be discovered and experienced in order to celebrate the most exclusive events. Far from common places.





The San Domenico Palace has since become the most famous monastery-hotel in the world. An air of enchantment lingers in the spacious white corridors where for nearly half a millennium before only the soft steps and whispered prayers of the friars were heard.





A luxury hotel within ancient walls where much recalls monastic life creates a startling contrast, but it is all the more fascinating for it.

Today as in times past, respecting time-honored traditions of home and hospitality, San Domenico welcomes its guests with a dedication and passion to ensure that each stay is very special, where unforgettable days are spent immersed in the restful tranguility of a truly magical place.

The 105 Rooms and Suites are located in two different wings: The Garden Wing, built within the former 14th century Convent and the Grand Hotel Wing, a marvellous building in liberty style, added to the hotel on 1896. Exclusive and charming, the ancient monk's cells in the



Old Monastery wing. Intimate, rich in ancient memories, laden with contemplative silences preserved for centuries. The view, a dream: the fresh joyousness of gardens in bloom, the graceful old cloister.

TRAVEL

TAORMINA

Closest Airport: CATANIA

Closest Train Station: TAORMINA - GIARDINI NAXOS

How far is Taormina from:	ROME	FLORENCE	MILAN
By plane (to Catania airport)	1 hr	1,20 hr	1,50 hr
By train (to Taormina-Giardini Naxos)	10 hrs	12 hrs	16 hrs
By car	8 hrs	10 hrs	15 hrs

TAORMINA BY PLANE

The nearest airport is Catania Fontanarossa (about 45 kilometres away from Taormina). There are weekly scheduled flights from many European cities and several daily flight connections from Rome, Milan, Napes Bologna, Venice, Florence. In addition, there are also several low cost flights. We suggest you get more information at your usual travel agency.

from the Airport by bus

From the airport to Taormina, there are several public buses.

There is a bus service direct from the airport to Taormina that takes approximately 90 minutes and costs euro 4,00 each way. Tickets may be purchased at the airport or at the bus station and buses leave nearly every hour during the high season and obviously less during low season. Alternatively, there are local buses leaving from the Central Railway Station in Catania and it takes approximately 2 hours to go via the inner roads. To get to the Central Railway Station in Catania you must take a city bus called Alibus, which leaves every 20 minutes from the airport to the Central Station Square (Piazza della Stazione). From there, several buses or trains go to Taormina daily.

The Taormina bus station is a 10-minute walk from the centre of town, while the Taormina Railway Station is located in Giardini-Naxos, along the coast.

Taormina is high atop Monte Tauro and in order to arrive in Taormina from the Giardini-Naxos train station, you must take a local bus or taxi (a 10-minute drive).

from the Airport by pick-up service

An airport pick-up service is available from the Catania Airport to Taormina. This service must be reserved at least one week in advance of arrival. All flight changes or late flights must be immediately communicated directly to the service. Direct contact information to be provided. This service is not cancellable within 48 hours of your arrival.

Taxi airport pick-up is available for both individuals and groups.

Larger groups may be accommodated on request and with appropriate advanced notice.

TAORMINA BY TRAIN

There are many direct train leaving for Sicily from all the main towns of Italy. The station for Taormina is Giardini-Naxos. Taormina is a 10-minute drive from the station and you can take a local bus or taxi.

TAORMINA BY CAR

from ROME: It takes approximately 8 hours to drive from Rome to Taormina. Take the highway to Reggio Calabria and exit in Villa San Giovanni. Take the ferryboat here to Messina (ferries go every 20 minutes and it takes approximately 20 minutes to cross the Straits of Messina). From Messina take the highway toward Catania, exit at Taormina.

from GENOA: If you do not want to drive through all of Italy, you can take a ferryboat from Genoa to Palermo (an overnight trip). Then from Palermo, take the highway to Catania (crosses inland) and from Catania (you do not need to enter the town), take the highway towards Messina and exit at Taormina. It takes about 3.5 hours to drive from Palermo to Taormina

from NAPLES: You can take a ferryboat to Catania. From Catania you can take the highway to Messina and exit in Taormina. It takes about 1.5 hours to reach Taormina.

TAORMINA CAR RENTAL

Car Rental is available in Taormina or in the Catania airport. Rates vary slightly from one company to another.

ACCOMPANYING PERSONS PROGRAMME

Sicily is full of sightseeing opportunities and places of interest to demanding tourists. Below are some useful information about the program for accompanying persons.

Tuesday, May 29,2012

Agrigento - Piazza Armerina departure time 6.30 am

One day excursion through Sicily by bus with tour leader. Arriving in Agrigento, you will visit the Valley of the Temples (Juno, Conocrdia, Hercules, Olympian, Zeus, Castor and Pollux), After lunch (optional) departure to Piazza Armerina and visit of the Roman Villa del Casale with its famous mosaics. Entry fees extra Cost per person € 50,00

Etna Sunset - departure time 3.00pm

Excursion by bus and jeep with tour leader. Reaching Etna north at 1.800 mts. ascent by jeep to the proximity of the main craters area.. Stop until sunset and return. Time for dinner in a local restaurant at 1.800 mts. Warm clothes and closed shoes are recommended. Cost per person € 79,00

Panarea - Stromboli – departure time 10.00 am

From Milazzo by private boat to Panarea. Free time on the island for visiting the typical village, enjoying the beach and having lunch(optional). Transfer to Stromboli and stop on the island until sunset. Light dinner on board. Visit to the "Sciara del Fuoco" by night admiring the volcano's activity from the sea. Cost per person € 86,00

Wednesday, May 30, 2012

Etna Round - Alcantara - departure time 7.00am

A tour will take your first to the Alcantare Gorges and afterwards to the Medieval town of Randazzo where you take a special old train called "Circumetnea" going to Adrano following the foot of Etna. Then, proceed by bus to 1.900 mts Etna South Station. Optional ascent to the main craters area, trekking or lunch on request. Cost per person \in 42,00 – \in 87,00 incl. ascent

Lipari – Vulcano – departure time 7.00am

Departure by bus to Milazzo and transfer by private motorboat to the island of Lipari passing by the characteristic pumice stone quarry. Free time for visiting the old town centre with the archeological park and for shopping. Transfer by motorboat to the island of Vulcano for a second stop. Possibility to swim in the warm sulphureous sea water, enjoying the beach and having lunch(optional). On the way back, navigation following the coastline admiring the Faraglioni Rocks, the Horse Cave and other particular attractions.

Cost per person € 66,00

CONTACTS

Prof. Michele Maugeri Chairman of the Conference e-mail: <u>mmaugeri@dica.unict.it</u>

Conference Secretariat



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