

7th expert meeting

IEA SHC Task 53

New Generation Solar Cooling & Heating Systems (PV or solar thermally driven systems)

Meeting room at CENTROPROVE – CNR-ITAE, Messina (Italy)

E-Mail: Salvatore Vasta : salvatore.vasta@itae.cnr.it

Telephone number: +39.090.624.404/296; +39.338.2124147 (Mobile)

Meeting Agenda – final

UPDATED : 17/04/2017

Wednesday April 19th, 2017, 9:00pm – 18:00 pm

Thursday April 20th, 2017, 9:00am – 13:00 pm

Task 53 website : <http://task53.iea-shc.org/>

Participation fee:

Registration fee is determined based on different activities (including dinner, lunch, and Coffee break, et al).

The amount is 110 EURO (VAT is not applicable) and registration process is managed by *Comitato Convegni EmHyTeC*.

Please use the “**Registration Form**” to register to the event. Please follow the instructions reported on the form. Registration must be completed by 31st March, 2017. Please, return the filled form to: salvatore.vasta@itae.cnr.it and lofaro@itae.cnr.it.

Day 1 - Agenda for Wednesday April 19th, 2017 (9:00pm-18:00pm)

1st block : Plenary			
9.00 – 9.15	Welcome and Organisational issues	Daniel Mugnier Salvatore Vasta	TECSOL CNR-ITAE
9.15 - 9.30	Welcome, Introduction, Structure of the meeting Presentation of new participants/attendees	Daniel Mugnier	TECSOL
9.30 - 10:00	Subtask A : Goals, structures, deliverables Components, Systems & Quality	Tim Selke	AIT
10.00 - 10:30	Subtask B : Goals, structures, deliverables Control, Simulation & Design	Robert Fedrizzi	EURAC
10.30 - 10:45	Subtask C : Goals, structures, deliverables Testing and demonstration projects	Richard Thygesen	MDH Uni
10.45 - 11:00	Subtask D : Goals, structures, deliverables Dissemination & market deployment	Daniel Mugnier	TECSOL

11.00 - 11:30

Coffee Break

2nd Block : Latest developments & results session			
11.30 - 11.40	Latest developments from SUNOYSTER	Carsten Corino	SUNOYSTER
11.40 - 11.55	PVCOOLING in France : what's new ?	Daniel Mugnier	TECSOL
11.55 - 12.10	Assessment of Solar Heating and Cooling Comparison of Best Practice Thermal and PV driven Systems	Daniel Neyer	UIBK
12.10 - 12.25	PV coupled Heat Pump versus Solar Thermal – including Building Mass as Thermal Battery	Daniel Neyer	UIBK
12.25 - 12.35	Advancement of the activities on LCA, LCA tool and key performance indicators.	Sonia Longo	UNIPA
12.35 - 12.45	Solar-electric Heating and Cooling with PCM Storage – Latest developments	Richard Schex	ZAE
12.45 - 13.00	Latest developments of the FRESECOO	Pietro Finochiarro	SolarInvent
13.00 - 14:30	Lunch Break		

3rd Block : Working group session 1 : Subtask C			
14:30 -16:30	Progress, issues and todos	Richard Thygesen	MDH

16:30- 17:00 **Coffee Break + Photo**

17:00-18:00 **Visit of the CNR-ITAE Lab end testing facility**

End of the working Day 1

Dinner at Restaurant Agora –ANNEX 4

Day 2 - Agenda for Thursday April 20th, 2017 (9:00pm-12:30pm)

4th Block : Working groups session 2 : Subtask B

9:00 - 10:30	Progress, issues and todos	Roberto Fedrizzi	EURAC
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10:30- 11:00 **Coffee Break**

5th Block : Plenary & overall

11.00 - 11.15	Subtask A : Report on working group items, planning of next steps; distribution of work.	Tim Selke	AIT
11.15 - 11.30	Subtask B : Report on working group items, planning of next steps; distribution of work.	Roberto Fedrizzi	EURAC
11.30 - 11.45	Subtask C : Report on working group items, planning of next steps; distribution of work.	Richard Thygesen	MDH
11.45 - 12.00	Subtask D : Report on working group items, planning of next steps; distribution of work.	Daniel Mugnier	TECSOL
12.00 - 12.30	Any other business, next meeting planning of next steps; distribution of work.	Daniel Mugnier	TECSOL

12.30 - 13:30 **Lunch Break**

END OF THE EXPERT MEETING

15.30 - 18:30 **IEA SHC Task 53 industry Workshop (see ANNEX 3)**

Annex 1: Meeting Participant list

No.	Name	Institute	e-mail
1	Daniel Mugnier	TECSOL	daniel_mugnier@yahoo.com
2	Tim Selke	AIT	Tim.Selke@ait.ac.at
3	Roberto Fedrizzi	EURAC	roberto.fedrizzi@eurac.edu
4	Pedro Vicente Quiles	UMH	pedro.vicente@umh.es
5	Carsten Corino	SUNOYSTER	carsten.corino@sunoyster.com
6	Richard Thygesen	MDH	richard.thygesen@mdh.se
7	Chiara Di Pasquale	EURAC	Chiara.dipasquale@eurac.edu
8	Daniel Neyer	UIBK	Daniel.Neyer@uibk.ac.at
9	Sonia Longo	UNIPA	sonialongo@dream.unipa.it
10	Marco Beccali	UNIPA	marco.beccali@dream.unipa.it
11	Salvatore Vasta	CNR ITAE	salvatore.vasta@itae.cnr.it
12	Rebekka Koll	AEE INTEC	r.koell@aee.at
13	Timo Korth	Uni Munich	timo.korth@hm.edu
14	Felix Loistl	Uni Munich	felix.loistl@hm.edu
15	Bales Chris	SERC	cba@du.se
16	Emmanouil Psimpoulos	SERC	eps@du.se
17	Richard Schex	ZAE Bayern	Richard.Schex@zae-bayern.de
18	Gabriele Penello	Fahrenheit AG	Gabriele.penello@fahrenheit.cool
19	Andrea Frazzica	CNR ITAE	Andrea.frazzica@itae.cnr.it
20	Valeria Palomba	CNR ITAE	Valeria.palomba@itae.cnr.it
21	Alessio Sapienza	CNR ITAE	Alessio,sapienza@itae.cnr.it
22			

Annex 2: LOGISTICS FOR TASK 53 MEETING

Arrival to Messina:

By Plane:

The closest airport to Messina is the International Airport of Catania. To get the city of Messina from the airport, CNR-ITAE suggests to rent a car or take the SAIS Bus: below you can find the bus current timetable.



AUTOSERVIZIO

MESSINA - A18 - CATANIA - AEROPORTO



www.saisautolinee.it

STAZIONAMENTI	Feriale	*	Feriale	* Sottosab	Giomalero	*	Giomalero	*	*	Feriale	Giomalero	Giomalero	Giomalero	Feriale	Giomalero	Giomalero	*	
MESSINA - Piazza Repubblica, 11 (Staz. FS)	4,15	5,15	6,00	6,15	6,20	6,30	7,00	7,30	7,45	8,00	8,45	9,00	9,45	10,15	11,30	11,45	12,30	
Autostrada A18	Via La Farina		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta	
CATANIA - Via Libertà (Ang. Via Archimede)	6,50	7,35	7,50	8,05	8,35	9,05	9,35	10,35	11,50	13,05	14,05							
Aeroporto Catania - (Terminal Partenze)	5,35	7,00	-	-	7,40	8,20	-	-	9,10	-	10,10	-	11,10	12,05	-	13,10	-	

STAZIONAMENTI	Feriale	Festivo	Feriale	*	Feriale	*	Giomalero	Giomalero	*	Giomalero	*	Giomalero	Giomalero	Giomalero	Giomalero	*	Giomalero	
MESSINA - Piazza Repubblica, 11 (Staz. FS)	13,00	13,00	13,15	13,30	14,00	14,30	14,45	15,00	15,45	16,00	16,30	16,45	17,00	18,15	18,30	19,30	20,15	
Autostrada A18	Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta	
CATANIA - Via Libertà (Ang. Via Archimede)	14,35	14,35	15,05	15,35	16,05	16,35	17,35	18,05	18,35	19,50	21,05	21,50						
Aeroporto Catania - (Terminal Partenze)	-	14,50	14,40	-	-	-	16,10	-	17,10	-	18,10	-	19,55	21,15	-			

Arrivi a Catania Box N° 3/4

BIGLIETTERIE E ASSISTENZA VIAGGIATORI

ore 4,15-21,15 CATANIA - Via D'Amico, 181 (Staz. FS) - Tel. 095-536168
ore 4,15-21,15 CATANIA - Bar Michelangelo
ore 4,15-21,15 CATANIA - Piazza Alcaide (Box Interbus/Etna) - Tel. 320-8164003
ore 4,15-21,15 CATANIA - Aeroporto Fontanarosa (Box SAIS Autolinee) - Cell. 370-1246388
ore 4,15-21,15 MESSINA - Piazza Della Repubblica, 11 - Tel. 090-771914
ore 4,15-21,15 MESSINA - Viale La Farina, 132

FERMATE A RICHIESTA DEI SIGG. VIAGGIATORI

IN PARTENZA DA MESSINA

- Via La Farina (angolo V.le Europa)
- Via La Farina (Dep. ATM)
- Via Taormina (Bv. Policlinico)
- Confesse Abbigl. D'Angelo
- Pistunina Hotel Europa
- Tremestieri Sup. SMA

IN ARRIVO A CATANIA


- Casello A18
- Piazza Michelangelo
- Viale Libertà (Incrocio Corso Italia)

Note: * - Si effettua da Lunedì a Venerdì (festivi esclusi)
 Feriale - Si effettua da Lunedì a Sabato (festivi esclusi)
 Giomalero - Si effettua da Lunedì a Domenica (festivi inclusi)
 Festivo - Si effettua nei giorni di Domenica e Festivi

N.B. L'azienda si riserva con altra pubblicazione di modificare il presente orario.
 L'azienda non risponde di eventuali ritardi dovuti a guasti o particolari situazioni di traffico.


Servizio ridotto nei giorni di:
 Capodanno, Pasqua, Pasquetta, 1° Maggio, Ferragosto, Natale

TROPOLITOGRAFIA "ANICITO" - Data di Stampa 26/12/2016 Orario in vigore dal 9 Gennaio 2017



AUTOSERVIZIO

AEROPORTO - CATANIA - A18 - MESSINA



www.saisautolinee.it

STAZIONAMENTI	*	Feriale	*	*	Feriale	*	Feriale	Giomalero	Giomalero	*	Feriale	Giomalero	Giomalero	Feriale	*	Feriale	Festivo	*	Giomalero	
Aeroporto Catania - (Terminal arrivi Box Sais)	-	-	-	-	-	7,10	-	8,40	9,30	-	10,20	-	11,40	-	12,40	-	12,40	-	13,40	
CATANIA - Via Libertà (Ang. Via Archimede)	5,00	5,50	6,10	6,30	7,00	7,30	8,15	9,00	10,00	11,00	12,00	13,00	13,30	13,30	13,30	13,30	13,30	13,30	13,30	
Autostrada A18	Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta	
MESSINA - Piazza Repubblica, 11 (Staz. FS)	6,35	7,25	7,45	8,05	8,35	9,05	9,50	10,35	10,55	11,35	11,45	12,35	13,05	13,35	14,05	14,35	14,35	15,05	15,05	

STAZIONAMENTI	Feriale	Sottosab	Feriale	Feriale	Festivo	Giomalero	Giomalero	Giomalero	Feriale	*	Festivo	Festivo	Feriale	Giomalero	*	*	Festivo	Giomalero	Giomalero	
Aeroporto Catania - (Terminal arrivi Box Sais)	-	-	14,40	-	14,40	-	16,10	-	17,10	-	17,10	-	18,40	-	19,45	19,45	20,45	22,45		
CATANIA - Via Libertà (Ang. Via Archimede)	14,00	14,30	15,00	15,00	16,00	17,00	17,30	17,30	17,30	17,30	18,00	18,30	19,00	19,45	20,00	21,00	21,00	21,00	21,00	
Autostrada A18	Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta		Via Bocatta	
MESSINA - Piazza Repubblica, 11 (Staz. FS)	15,35	16,05	16,05	16,35	16,35	17,35	17,35	18,35	18,35	19,05	19,05	19,35	20,05	20,35	21,20	21,10	21,35	22,35	0,10	

Partenze da Catania Box N° 3/4

BIGLIETTERIE E ASSISTENZA VIAGGIATORI

ore 4,15-21,15 CATANIA - Via D'Amico, 181 (Staz. FS) - Tel. 095-536168
ore 4,15-21,15 CATANIA - Bar Michelangelo
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- Piazza Michelangelo
- Casello A18

IN ARRIVO A MESSINA

- Tremestieri (Sup. SMA)
- Pistunina Hotel Europa
- Confesse Abbigl. D'Angelo
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 Capodanno, Pasqua, Pasquetta, 1° Maggio, Ferragosto, Natale

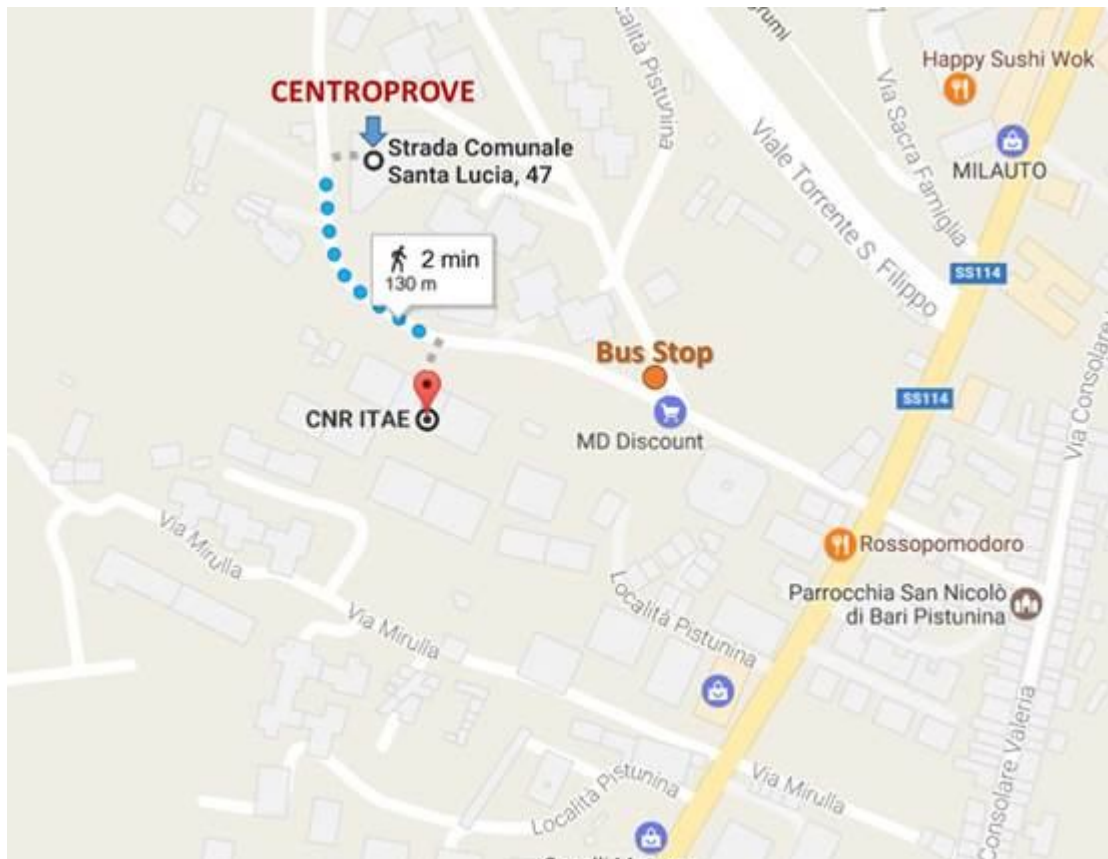
TROPOLITOGRAFIA "ANICITO" - Data di Stampa 26/12/2016 Orario in vigore dal 9 Gennaio 2017

MORE INFORMATION

Taxis are also available for approximately 130-150 € to Messina.

Location of the CNR ITAE and CENTROPROVE in Messina

<https://www.google.it/maps/place/CNR+ITAE/@38.1497155,15.5236763,17z/data=!3m1!4b1!4m5!3m4!1s0x13144f18f19cd611:0x4aea447a92e770a7!8m2!3d38.1497113!4d15.5258703>



Suggested hotels

- Europa Palace Hotel, 4 STARS, 55 € 1.3 km far from the Institute (15 min walking)
<https://goo.gl/maps/sqtU66anRP52>
- Hotel Messenion, 4 STARS, 145 € downtown, 5 km far from the Institute (30 min by Bus)
<https://goo.gl/maps/5QVgNddFTov>
- Residence S. Martino, 4 STARS, 85 € downtown, 4 km far from the Institute (15 min by car or 25 min by Bus) <https://goo.gl/maps/9w1duCtRSbD2>

Unfortunately, the Europa Palace Hotel is the only one really close to the Institute, however, CNR-ITAE suggests to read the reviews on tripadvisor to avoid surprises! Warmly suggestion for the Residence S. Martino.

Annex 3: IEA SHC Task 53 Workshop

Whereas renewable cooling and heating is more and more a hot topic in the energy world, a new generation of solar cooling and heating systems is appearing from labs and in the market. Consisting both in solar thermal or photovoltaic, the concepts are oriented to cost reduction and long term reliability.

A new IEA Solar Heating and Cooling programme name Task 53 is exactly addressing this new generation and will present during this workshop the latest ongoing development on this topic.

<http://task53.iea-shc.org/>

Seminar Chairman: Dr. Daniel Mugnier

Operating Agent, IEA SHC Task 53

INTRODUCTION (15.00-15.15)

General presentation of IEA SHC Task 53
(Daniel Mugnier, TECSOL)

PRESENTATION OF LATEST ONGOING RESULTS AND DEVELOPMENTS IN PV AND THERMAL SOLAR COOLING (15.20 - 18.40)

15.20-15.40 *Phase Change Materials (PCMs) for energy storage in Thermal Solar Cooling Systems*

(Andrea Frazzica, CNR-ITAE)

15.40-16.00 *Solar cooling by Pleion: a case study in Sicily*

(Filippo Gangi, Pleion s.r.l.)

16.00-16.20 *Freescoo, a new idea of solar air conditioning*

(Pietro Finocchiaro, SolarInvent s.r.l.)

16.20-16.40 *Solar Thermal Cooling with Adsorption Chillers – Experiences and Consequences for Future Projects*

(Gabriele Penello, SORTECH AG.)

16.40-17.00 *PV Solar Cooling for Air Conditioning and DHW*

(Pedro Vicente, UMH)

17.20-17.40 *Investigation on advanced batteries for PV electric cooling and building energy demand*

(Francesco Sergi, CNR-ITAE)

17.40-18.00 *An innovative HCPV/T collector and its potential SHC applications*

(Filippo Paredes, IDEA s.r.l.)

18.00-18.20 *High temperature SHC systems with LFR collectors and molten salts thermal storage*

(Fabio Montagnino, Consorzio ARCA)

18.20-18.40 *Package label for promoting solar thermal in energy systems in EU countries*

(Dario D'Alessandris, ASSOLTERM)

TECHNICAL, ECONOMICAL AND ENVIRONMENTAL ASPECTS OF THE NEW GENERATION SOLAR COOLING SYSTEMS. (18.40-19.00)

Discussion on technical, economical and environmental aspects of the new generation solar cooling



**Registration is required
Please register by 31st March.**

Register by sending an e-mail to vasta@itae.cnr.it

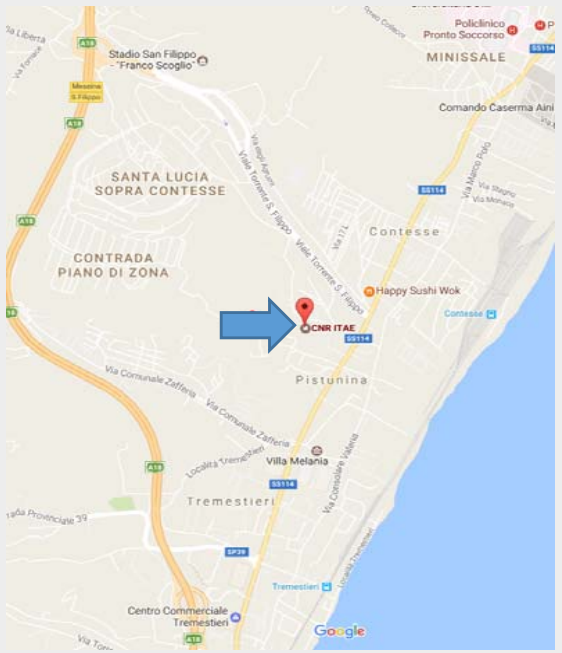
Venue

CNR-ITAE

Via Salita S. Lucia n. 5
98126 S. Lucia, Messina
ITALY



Coordinate
38.149854 N
15.525811 E



For
INFORMATION

Dr. Eng. Salvatore Vasta, PhD.
*Research Engineer
Thermally Driven Heat Pumps*

P: +39.090.624.404/296 - F: +39.090.624.247
Skype: salvo-vasta
W: www.itae.cnr.it - E: salvatore.vasta@itae.cnr.it

REGISTRATION

Please register before 31st March
sending an e-mail at vasta@itae.cnr.it

Task 53 Workshop

“NEW GENERATION OF SOLAR
COOLING AND HEATING SYSTEMS
DRIVEN BY PHOTOVOLTAIC OR SOLAR THERMAL
ENERGY”

20th April 2017 - 15.00
Auditorium of CNR-ITAE

Via Salita S. Lucia n. 5
98126 S. Lucia, Messina
ITALY

P: +39.090.624.404
F: +39.090.624.247
@: salvatore.vasta@itae.cnr.it

National Research Council of Italy



National Research Council of Italy



SHC Task 53

New Generation Solar
Cooling & Heating

Annex 4 : Wednesday 19/04 evening - Restaurant location and Menu proposal

The 'social' dinner will be held at the Restaurant Agorà. The menu is under definition: more details will be provided later.

AGORA', Ristorante-Pizzeria,
Via Giurba Mario 27 - 98123 Messina (ME)
Tel : +39 090 640 9781

<https://www.google.it/maps/place/Agor%C3%A0/@38.1872006,15.5509168,18z/data=!4m2!1m6!3m5!1s0x13144e7c5e16bc3b:0x5440a18c5c83175a!2zQWdvcsOq!8m2!3d38.187169!4d15.5518368!3m4!1s0x13144e7c5e16bc3b:0x5440a18c5c83175a!8m2!3d38.187169!4d15.5518368>

Menus:

VEGETARIAN MENÙ

APERITIVO: Calice Prosecco di benvenuto con fritturina

ANTIPASTO RUSTICO: Tortino melanzane con crema di pomodoro e basilico, involtini di verdure, caponatina in agrodolce

BIS DI PRIMI (in due portate) con ripasso:

1. Risotto con radicchio e mandorle
2. Strozzapreti alla norma

FRUTTA DESSERT: semifreddo mandorla con topping al cioccolato

Vino Rosso Principe di Corleone (syrah-nerod'avola)

Acqua e bevande

Caffè o limoncello o Ns. amaro o ns. grappa

STANDARD MENÙ

APERITIVO: Calice Prosecco di benvenuto con fritturina

ANTIPASTO degustazione PESCE IN UNICO PIATTO (a persona): tonno affumicato, salmone marinato, gamberi rossi di Mazzara marinati, insalata di polipo, cozze gratinate, polpettine di pesce, frittelle di neonata, franceschini

BIS DI PRIMI (in due portate) con ripasso:

1. Risotto con gamberi e pesto di agrumi
2. Strozzapreti con tonno fresco, pomodorino e origano

FRUTTA DESSERT: semifreddo mandorla con topping al cioccolato

Vino bianco Principe di Corleone (insolia)

Acqua e bevande

Caffè o limoncello o Ns. amaro o ns. grappa

Tuesday 18/04 - evening - "Get Together" DINNER (own expenses)

A pre-meeting dinner (own expenses) will be organized on Tuesday evening. People already arrived in Messina are invited to participate.

Location: **Pizzeria Lievito** (<https://www.pizzerialievito.it/>) in the very central Piazza Duomo in Messina

Tables are confirmed for 8.30 P.M. For those of you staying at the hotel EUROPA Palace (the one close to ITAE Institute, in the south of Messina) we can offer some seats in our cars (6 – 8 seats). So, please contact me if you want to go downtown with us: meeting in the Hotel lobby at 7.30 P.M.

For all the others, Salvatore would like to know how many people will get the restaurant, please send an e-mail (or whatsapp, my mobile is +39 338 212 4147)

For more information you can contact : salvatore.vasta@itae.cnr.it