



TO THE MEMBERS OF IMEKO TC12

Dear Colleagues,

it has been a great privilege for me to be assigned the role of "TC12 Information Officer" during the TC12 meeting at the recent TEMPMEKO & ISHM Symposium in Portorož. I am grateful to Francesco Righini who indicated me as a "successor" in handling the newsletter and writing the editorials and to the TC12 Colleagues who approved my new role. This is a relevant responsibility: Francesco started the newsletter about 16 years ago and managed it till the last issue. It will not be that easy to continue this task at his same level. I will try to do my best.

Future activities in temperature measurements will surely cover wider aspects than what we have been used to in the past. Temperature metrology will continue to be deeply concerned with the definition of the unit, as experiments in determining the Boltzmann constant are showing promising results. The *mise en pratique* of the unit and new definitions of thermodynamic and practical scales will also strongly involve the thermometry community. Beside these "traditional" tasks, temperature metrologists will face new demands for traceability and standards. Food, environment (climate and meteorology), health and new topics to come, will all be subjects of activities and joint

research projects. We'll have to be prepared to meet new communities and understand and speak their languages. Topics that until today were grouped in sessions titled "other applied measurements" will likely have their own sessions in future workshops, symposia and meetings. Presentations and publications will be the sign of our active involvement in those new activities.

I personally hope with this newsletter that we will increase our exchange of information and help the circulation of ideas soliciting cooperation and joint projects on the traditional and new aspects of our research activities. My personal intention is to leave these pages open to the contribution of all the members and to offer the possibility to host ideas, proposals and discussions on all the multiple aspects of temperature metrology. Reports on relevant activities and experiments, results, future events and news will be the main focus for these few pages that you will continue to receive about twice a year, with the hope that you will continue to appreciate these efforts to maintain open contacts with all the relevant players in the community.

TEMPMEKO & ISHM 2010 was held in early June. A renewed coordination and the vacation period have delayed this Newsletter. Future issues will resume regularly in June and December.

Andrea Merlone



Joint International Symposium on
Temperature, Humidity, Moisture and Thermal
Measurements in Industry and Science

May 31st - June 4th 2010

Portorož, Slovenia

www.tempmeko-ishm.org

“In between – sun & sea”

The first joint event of TEMPMEKO and ISHM was held on May 31st-June 4th at the Grand Hotel Bernardin in Portorož, Slovenia. After the previous editions in Lake Louise, Canada (TEMPMEKO 2007) and Rio de Janeiro, Brazil (ISHM 2006), agreement was reached to hold a joint symposium in Europe. The 303 attendees from 49 countries represent a significant increase when compared to previous events and in relation to the difficult economic times. This can be attributed to the decision to hold a joint event as well as to the convenient location, which provided a wide range of accommodations.

Over the four days of the conference, the participants presented a total of 349 contributions. We had 5 very interesting plenary lectures attracting the broadest audience. Furthermore there were 138 oral and 206 poster presentations. The oral presentations occupied 33 sessions, with the majority of these taking place in three parallel streams. The posters were divided into three different sessions; on Monday, Tuesday and Thursday. The posters were conveniently placed

among the exhibitors and were accessible throughout the whole day.

Geographic distribution of the participants

EUROPE	204	ASIA-PACIFIC	52
AUSTRIA	6	AUSTRALIA	2
BELARUS	1	CHINA	13
BELGIUM	2	HONG KONG	1
BOSNIA AND HERZEGOVINA	1	JAPAN	17
BULGARIA	1	NEW ZEALAND	4
CROATIA	4	PHILIPPINES	1
CZECH REPUBLIC	9	SINGAPORE	1
DENMARK	6	SOUTH KOREA	8
ESTONIA	2	TAIWAN	3
FINLAND	10	THAILAND	2
FRANCE	13		
GERMANY	34	AMERICA	36
HUNGARY	1	ARGENTINA	1
ITALY	16	BRAZIL	2
NETHERLANDS	8	CANADA	7
NORWAY	2	MEXICO	1
POLAND	4	PUERTO RICO	1
PORTUGAL	3	UNITED STATES	24
RUSSIAN FEDERATION	11		
SERBIA	1	AFRICA	11
SLOVAKIA	4	BURKINA FASO	1
SLOVENIA	22	EGYPT	2
SPAIN	6	GHANA	2
SWEDEN	4	MOROCCO	1
SWITZERLAND	10	SOUTH AFRICA	3
TURKEY	6	TUNISIA	2
UNITED KINGDOM	17		

The joint event began with a welcome party, co-sponsored by Isotech from the United Kingdom (www.isotech.co.uk) and by Tiger Optics, from the

United States (www.tigeroptics.com). The scientific program ran from Monday morning to Thursday evening. On Wednesday afternoon a cultural visit took place, to the Predjama Castle (partially built in a cave) and to the world famous Postojna cave. After such a long day we had a lovely dinner in the restaurant in front of the cave. The cultural visit was sponsored by MBW from Switzerland (www.mbw.ch) and RH Systems from the United States (www.rhsystems.net). On Thursday, after the end of the technical program, the conference gala dinner was held, sponsored by Fluke from United States (www.hartscientific.com) and including a concert of the Terrafolk band. Two other companies, Voetsch from Germany (www.v-it.com/en/vit/start) and Kambič d.o.o. from Slovenia (www.kambic.com) were sponsors of the daily lunches. All the meals were included in the registration fee, creating a friendly environment for the exchange of ideas and a great opportunity for lively discussion. The Conference dinner marked the closing of TEMPMEKO & ISHM 2010, with the announcement of the venue for the next TEMPMEKO in 2013.

We should not forget the help received by our co-organizers from the Metrology Institute of the Republic of Slovenia – MIRS - and the valuable contribution from the Slovenian Research Agency – ARRS -, that underlines the importance of the event at the national level.

Before the joint symposium, IMEKO held in the same location its annual meetings. On Saturday, there were meetings of the Advisory Board, of the Technical Board and of the Editorial Board of MEASUREMENT. On Sunday IMEKO held its General Council and the attendees joined the

TEMPMEKO-ISHM participants to the evening welcome party.

Taking advantage of the large participation, several other technical meetings took place during and after the joint event.

Technical meetings

Date	Meeting	Convenor
31.5	Review progress with the thermal imager specification standard	Graham Machin
	Meeting of Euramet TC-Therm Working Group (Thermophysical Properties of Materials);	Jean-Remy Filtz
	Meeting on EMRP - Environment;	Andrea Merlone
1.6	IEC SC65B WG5 Meeting - Discussion of IEC TS 62942-2 Draft 1.0 Industrial process control devices - Radiation thermometers - Part 2: Determination of the technical data for radiation thermometers	Jörg Hollandt
	TCT Strategy group meeting	Graham Machin
	Meeting of the Evitherm Society on the future of thermal metrology;	Franco Pavese
3.6	IMEKO/TC12 meeting	Francesco Righini
4.6	Meeting of CIPM CCT Working Group 6 (Humidity measurements)	Stephanie Bell
	Blackbody Users Group (BBUG) Meeting	Graham Machin
	High Temperature Fixed Points CCT-WG5 research plan	Graham Machin

The Proceedings of TEMPMEKO & ISHM 2010 will be published as 4-5 Special Issues of the International Journal of Thermophysics (IJT). The editorial team consists of the two co-chairs Joachim Fischer (thermal measurements) and Jeremy Lovell-Smith (humidity and moisture), who will work closely with Francesco Righini and the IJT editor,

Mickey Haynes, to ensure that the TEMPMEKO & ISHM 2010 archival record is made available in as timely a manner as circumstances permit. For those who prefer a paper hardcopy version of the Proceedings, Springer, the publisher of the IJT, has indicated a price of 45 USD per issue, but printed copies must be booked with the organizers before September 2010.

An exhibition of temperature and humidity measuring equipment from 13 companies took place adjacent to the lecture rooms, and conference participants were encouraged to take the opportunity to view the exhibits and speak with the representatives in attendance.

Exhibitors

[Automatic Systems Laboratories](#)
[Fluke Corporation, Hart Scientific Division](#)
[Guildline Instruments](#)
[INSCO](#)
[Isotech – Isothermal technology](#)
[Kambič Laboratory Equipment](#)
[MBW Calibration, RH Systems](#)
[Measurements International Ltd.](#)
[Mettler Toledo](#)
[Michell Instruments](#)
[Pond Engineering](#)
[Rotronic](#)
[Vaisala](#)

We have tried to do our best to present Slovenia in the proper way. Organizing TEMPMEKO & ISHM 2010 was very time consuming and it included number of “small” things. But at the end, we were very satisfied with the response by participants from all over the world. We hope that maybe in future some of you will return to Slovenia as a tourist and not only as a scientist.

We send to Eduarda Filipe and to the Portuguese colleagues our best wishes for a successful TEMPMEKO 2013 in Madeira.

The Local Organizing Committee (LOC)

Janko Drnovšek, LOC Chairman

Igor Pušnik, LOC Scientific Secretary

Jovan Bojkovski, member of SC, IPC and LOC

TC12 News

New TC12 members.

Two members (Ben Tsai, NIST, USA and Alan Steele, NRC-CNRC, Canada) have recently left TC12 because their professional assignments were taking them away from the temperature field. Both of them have significantly contributed to the work of TC12 through the years and we will miss their contribution.

A warm welcome to Howard Yoon, NIST, USA and to Ken Hill, NRC-CNRC, Canada who are replacing them. Both of them are long time friends and contributors to TC12 and we look forward to their continuing work with the committee.

We are also pleased to welcome into the committee Anna Szmyrka from the Institute of Low Temperature and Structure Research of the Polish Academy of Sciences who has recently joined TC12. She is also a long time friend of TEMPMEKOs and we look forward to her contribution to our activities.

More TEMPMEKO & ISHM 2010

Those who took part to Tempmeko 2007 in Lake Louise, will surely remember that the organizers were able to keep the largest ice point of water plateau in the world, in front of the Symposium Hotel, lasting all along the session days! In 2010 the organizing committee made it big too! According to the preparation of new projects on traceability for climate studies and as a strong example of dissemination, after a training course held before the conference start, they took the participants inside the largest temperature and humidity stabilized climate chamber in the world!



... to evaluate weather conditions.

Before the conference...



Pre-conference course on the temperature and humidity of the local sea.

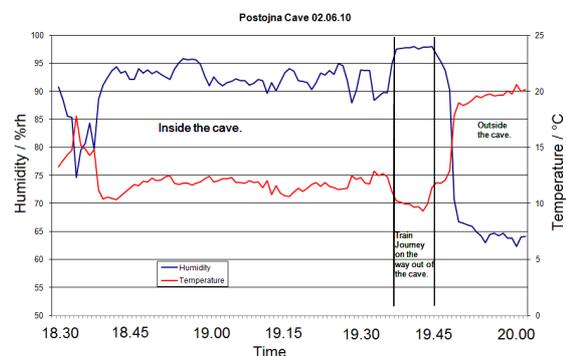


A subset of attendees sacrificing themselves...

Cultural visit



Inside of the largest temperature and humidity stabilized climate chamber in the world.



Temperature and humidity records during the visit. (Courtesy of Robin Farley - **rotronic**)



Wooden hand- made replicas of *Proteus Anguinus*



Workshop secretariat office room.



A warning... for those intending not to attend all the Symposium sessions!

Oral sessions



Gas Controlled Heat Pipes for Temperature metrology: a safe job?



In-situ calibration of temperature sensors for weather stations.

During the Symposium



“Paparazzi” shot of big decisions being taken (i.e. selection of wines for the dinner).

Local environment



Speed of sound evaluation for primary thermometry.



Gala dinner



Who should not be part of this picture?

