



# *NEWSLETTER*

## *IMEKO Technical Committee 12*

Andrea Merlone  
INRiM Istituto Nazionale Ricerca Metrologica  
Strada delle Cacce, 91 - 10135 Torino, Italy  
tel + 39 011 3919734 fax + 39 011 3919747  
e-mail: a.merlone@inrim.it

### **Editorial**

**D**ear Colleagues,

welcome to this Special Issue of the IMEKO TC12 Newsletter devoted to TEMPMEKO 2016. You will find interesting news, information on the event and details on the number of received abstracts and registered participants.

TEMPMEKO offers both quality contributions and numerical indicators on advances in thermal metrology. The mutual influence between the received contributions and the topic selection clearly highlights where the scientific community is addressing its efforts and how those are motivated by societal needs. As an example, contributions dealing with meteorology and environmental research up to a few years ago were grouped under something like “other applications”. Now we have both a keynote lecture and specific sessions on this topic, demonstrating how metrologists are working to improve the quality of data for climate studies, in response to specific clear needs and working under collaborative actions and projects.

As it has always been, TEMPMEKO will be a turning point. We expect to be back from the event with increased motivations, added knowledge, new ideas and the memory of beautiful places.

We are all looking forward to meet “old” and new friends at the event. See you in Zakopane!!

*Andrea Merlone*

### **Message from the TC12 Chair**

The XIII International Symposium on Temperature and Thermal Measurements in Industry and Science – TEMPMEKO 2016 is on our doorstep! It will be held in Zakopane, Poland between 26th June and 1st July. It is the main triannual event in our temperature and thermal measurements scientific community.

All indications point to a very successful TEMPMEKO: The Organizers are to be complimented for their great efforts. The IPC Chairs and IPC members have provided time, work and expertise to select relevant scientific and technical papers for oral and poster presentations. Distinguished keynote lecturers have been invited and have accepted to come. Top manufacturers in the field have reserved exhibition space at the symposium. Numerous satellite meetings will complement the event. Wonderful social events are planned for the participants and their accompanying persons.

Please find below some articles reporting details about the ongoing preparations and the scientific contributions.

But, most important of all – your colleagues from all over the world will be there and you will be able to meet them, to listen to their presentations, to discuss the fine points in person and will have the opportunity to spend precious informal time with them.

*With “TEMPMEKO ad portas - be sure to attend”!*

*Davor Zvizdic*

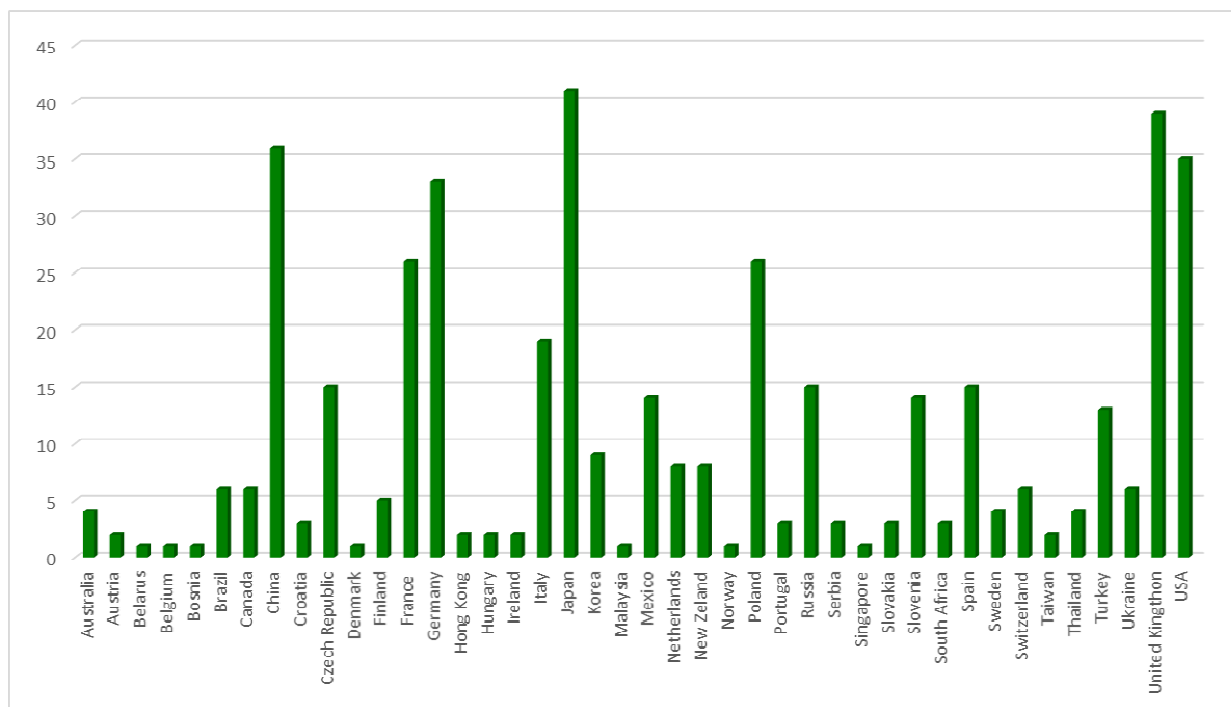
## Information about TEMPMEKO 2016



Less than two months to the start of the XIII International Symposium on Temperature and Thermal Measurements in Industry and Science – TEMPMEKO 2016. The Symposium is addressed to scientists, manufacturers of measuring instruments, engineers, and to students working in the field of temperature metrology. As it can be expected the meeting will be a big important event for the world temperature metrology community.

The Symposium has been organized under the auspices of TC12 IMEKO by the Institute of Low Temperature and Structure Research of the Polish Academy of Sciences (INTiBS) in Zakopane (Poland) between 26<sup>th</sup> June and 1<sup>st</sup> July.

In May 2015 the Conference Organizer - INTiBS - sent the first announcement to 2,500 recipients. The Conference website [www.tempmeko2016.pl](http://www.tempmeko2016.pl) was opened on 1<sup>st</sup> June 2015. Since then abstracts were submitted. By 31<sup>st</sup> October 2015 (the first deadline) 138 works had been received. Then the International Programme Committee Chairs (Graham Machin and Richard Rusby) decided to prolong the deadline until 20<sup>th</sup> November. On 17<sup>th</sup> November 210 abstracts were recorded in the system, but on 20<sup>th</sup> November there were 401 works registered. Later - by the end of 2015 - the number of submitted works had increased to 454.



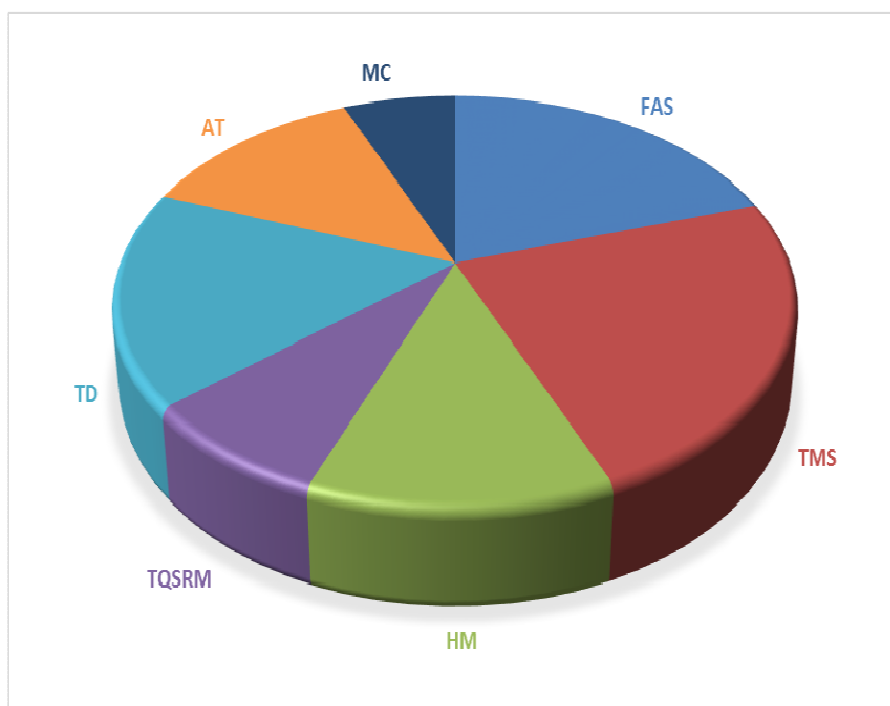
The authors of the articles came from 42 countries around the world.

On 31<sup>st</sup> January 2016 all submitted abstracts were assessed by the reviewers, and in end of February 2016 the IPC accepted for presentation at the Conference 428 works. More than a dozen works were withdrawn by the authors, others by reviewers.

Due to the large number of submitted works, some articles proposed by the authors for an oral presentation had to be moved to the poster sessions. Within the 4 days of the conference, 4 oral parallel sessions and two poster sessions will be held each day.

The presentations are divided among the main topics:

<b>91 - FAS</b>	Fundamental aspects of thermometry
<b>107 - TMS</b>	Temperature methods and sensors
<b>56 - HM</b>	Humidity and moisture
<b>36 - TQSRM</b>	Thermophysical quantities and standard reference materials
<b>77 - TD</b>	Traceability and dissemination
<b>58 - AT</b>	Applications of temperature, humidity, moisture and other thermal measurements
<b>29 - MC</b>	Meteorology and climate



Topics distribution

Full papers will be eligible for publication in special issues of the International Journal of Thermophysics, subject to meeting the required standards. The deadline for submission of papers to the IJoT Tempmeko 2016 Special Issues is 30 June 2016. Papers must be submitted directly via the IJoT Editorial Manager website (<https://www.editorialmanager.com/ijot/>). They will be subject to peer review to ensure that they are of the appropriate quality and interest, and demonstrate a significant scientific or technical advance. Authors should be careful to observe the editorial and other requirements of the journal.

Five keynote lectures will be presented at the Symposium:

**Roger Atkinson**, WMO, *Thermal measurements for monitoring climate changes*

**Boris Khlevnoy**, VNIIOFI, *Advances and prospects in high temperature radiometry*

**Michael de Podesta**, NPL, *The definition of the Kelvin in the new SI: its derivation, implementation and implications*

**Jifeng Qu**, NMI, *The status and future of Johnson noise thermometry*

**Gregory F. Strouse**, NIST, *Thermal measurement challenges in advanced manufacturing.*

11 satellite meetings will also take place during the Conference.

The proposal programme of the Symposium is available on the website [www.tempmeko2016.pl](http://www.tempmeko2016.pl).

The Conference will be attended by the following sponsors (ACT, Chino, Isotech, Kambic, MI, Rotronic, Wika, Fluke, AccuMac, Batemica, Decagon Device, Guidline, Novasina) and exhibitors (Center of Measurement Standards/Industrial Technology Research Institute, , MBW Calibration RH Systems, Shinyei Kaisha, Springer) presenting the latest achievements of their companies.

Up to mid-May there were more than 300 registered participants.

The Organizers of the Conference, with help from the local institutions, have planned many attractive events for participants and accompanying persons as trips to the most beautiful and picturesque valleys, visits to the regional highland architecture, a visit to the meteorological station on Kasprowy Wierch. Social events like a barbeque with regional dishes and folk music are planned. During the Gala dinner, the Tatrzańska Klimatyczna Orkiestra Concert will perform.

All important information is available from the website [www.tempmeko2016.pl](http://www.tempmeko2016.pl).

You can contact the Organizers at – [tempmeko@int.pan.wroc.pl](mailto:tempmeko@int.pan.wroc.pl) or [katarzyna.polakowska@trip.pl](mailto:katarzyna.polakowska@trip.pl).

We are looking forward to meet all of you soon in Zakopane, Poland.



*Anna Szmyrka-Grzeby  
Aleksandra Kowal  
Organising Committee, TEMPMEKO 2016*

---

## Message from IPC Chair Persons

Following the submission and review of abstracts, the programme for Tempmeko was settled and published last month, and it is the largest yet: about 300 authors will present 188 oral and 240 poster papers over the four days of the conference. Topics covered are novel devices and applications for temperature sensing, ever more inventive solutions for the realisation and dissemination of the ITS-90, and many developments in radiation thermometry, including implementing new primary methods. The measurement of emissivity, surface temperature and heat flux feature strongly among thermal quantities related to heat transfer. Humidity measurement is equally vibrant, and it seems that moisture measurement generally is a growing field. The programme continues the trend set in recent years in having meteorology and climate metrology as a major conference theme. Five plenary speakers will provide overviews of topics of current interest, notably the implementation of the new definition of the unit of temperature which is expected to be adopted in 2018. It will be another milestone among temperature conferences.

*Graham Machin  
Richard Rusby  
Co-IPC chairs, TEMPMEKO 2016*