



SYMPOSIUM '99

***75 years of CIE
photometry***

**Programme and Call for
Participation**

**Photometry of the past and what is
expected for the next millennium**

30 September - 02 October 1999

**Hungarian Academy of Sciences, Budapest
HUNGARY**

CIE SYMPOSIUM '99: 75 years of CIE photometry

The present photometric system was adopted 75 years ago by the CIE at its Session in Geneva.

The CIE Symposium '99 will commemorate this anniversary in Budapest, Hungary, between 30 September – 2 October, 1999.

Main emphasis will be laid not on the past 75 years but on what we can learn from this period, and what should be done to develop photometry into a system that can serve lighting engineering well for the next 75 years.

Latest information is available at the meeting Web Site:

<http://cie.kee.hu/symp99>

Introductory Paper

The Introductory Paper will be read by *Dr. Franz Hengstberger* Director of CIE Division 2 "Physical measurement of light and radiation" (1991-1999) and Vice President Publication (since 1999 on).

Invited Papers

Invited papers are intended to review the system of photometry, put it in proper perspective from the point of view of modern vision knowledge and legal metrology, discuss its merits and shortcomings as seen by lamp manufacturers, the indoor and outdoor lighting practitioners.

The following Invited Papers have been scheduled:

Visual fundamentals

- Prof. Arne Valberg (Norwegian Uni. for Sci & Tech, Physics Dept. Vision Res. Lab.), CIE photometry and vision research

Metrology, Physical photometry

- Dr. Bill Blevin (Australia, Secretary of the CIPM), The base unit of photometry and the Metre Convention
- *Dr. Andrew Wallard (Deputy Director, National Physical Laboratory, UK)* Radiometry and Photometry into the 21st Century - a brief look at industrial needs and the response of the CCPR

Applied photometry

- Dr. Terry McGowan (USA, Lighting Ideas, Inc. & GE-Nela Park), Lamp Photometry - Quest for Solutions
- Prof. Mark S. Rea (USA, Lighting Research Center, Rensselaer Polytechnic Institute), Photometry for lighting applications: Should it be more than $V(\lambda)$?
- Prof. David Loe (Building Research Establishment, UK), Can photometry be used to define the appearance of a lit scene?

Colorimetric aspects

- Dr. Pieter Walraven (Em TNO Human Factors Research Institute, Soesterberg, The Netherlands), Fundamental chromaticity diagram with physiological axes by CIE TC 1-36

Closing Paper

Dr. Ken Sagawa (NIBH, Japan), CIE photometry for the next 75 years

Symposium Programme

The following table provides an overview of the Symposium Programme. Invited papers are in **bold**. Click on the author or title of a paper to reach the Abstract of the paper.

Post Deadline Posters might be submitted till 1999-08-31. The International Advisory Board will decide on their acceptance by 1999-09-15.

1999-09-30, Wednesday pm: Visual fundamentals

	Author	Title
14:00-14:30	Hengstberger F	Introductory paper
14:30-14:50	Bastie J	Light measurements before $V(\lambda)$
14:50-15:20	Valberg A	CIE photometry and vision research
15:20-15:40	Walraven PL.	Extension of $V_M(\lambda)$ beyond 830 nm
15:40-16:00	Eloholma M, Halonen L	The effects of light spectrum on visual performance at mesopic light levels
16:00-16:30	Coffee-break	
16:30-16:50	Bodrogi P	On the use of the Ware and Cowan conversion factor formula in visual ergonomics
16:50-17:10	Schanda J, Bukta B	Readability of coloured signals. - Does the $V(\lambda)$ function describe task performance correctly?
17:10-18:30	Walraven PL	General discussion on vision and photometry
18:30-20:00	Get together party	

1999-10-01, Friday am: Applied photometry

9:00-9:30	McGowan T	Lamp photometry – Quest for solutions
9:30-10:00	Rea MS	Photometry for lighting applications: Should it be more than $V(\lambda)$
10:00-10:30	Loe D	What can photometry do to better describe the appearance of the lit scene
10:30-11:00	Coffee-break	
11:00-11:20	Fotios SA, Levermore GJ	The effect of lamp colour properties upon perception: A summary of research and the implications for lighting design
11:20-11:40	Berman SM, Jewett DL	Full vision photometry for the VDT environment based on physiological and behavioral principles
11:40-12:00	Schmidt H-J	New methods of lighting design and their impact on luminaire photometry
12:00-12:30	Köhler R	Discussion
12:30-14:00	Lunch-break	

1999-10-01, Friday pm: Metrology

14:00-14:30	Blevin B	The base unit of photometry and the Metre Convention
14:30-15:00	Wallard A	Radiometry and Photometry into the 21 st Century - a brief look at industrial needs and the response of the CCPR
15:00-15:20	Corrons A	Realizations of the Basic Unity of Photometry based on Absolute Radiometers
15:20-15:40	Ohno Y	Recent developments in detector-based photometry and future needs in photometry
15:40-16:00	Dézsi Gy, Andor Gy	Detector-based photometric scale at the National Office of Measures (OMH), (Hungary)
16:00-16:20	Coffee-break	
16:20-16:40	Köhler R	International comparisons in Photometry and Radiometry
16:40-17:00	Moore JR	Light measurement at mesopic levels using the concept of Equivalent Luminance
17:00-18:00	Moore JR	Round-Table discussion of further developments of photometry
19:00-22:00	Symposium dinner	

1999-10-02, Saturday am: Colorimetric aspects

9:00-9:30	Walraven PL	Fundamental chromaticity diagram with physiological axes by CIE TC 1-36
9:30-9:50	Abraham Gy, Kucsera I, Kovacs G, Wenzel K	Checking the diagnosis of colour deficiency by color mixing
9:50-10:10	Wenzel K, Ábrahám Gy, Kucsera I, Kovács G	Measurements of colour adaptation under different coloured light
10:10-10:30	Ladunga K, Kucsera I, Wenzel K,	What do colour deficient and dichromat people see
10:30-11:00	Coffee-break	
11:00-11:20	Kucsera I, Ábrahám Gy, Wenzel K, Kovács G,	Approximation of human cone responsivity curves with low parametric mathematical functions
11:20-12:30	Terstiege H	General-discussion
12:30-13:00	Sagawa K	CIE photometry for the next 75 years, Closing paper

Who should attend

This meeting is open to all participants. To ensure adequate space and support, and to allow distribution and adequate review of relevant documents, prior registration is required.

The papers to be read will be of benefit to scientists and engineers working in basic and applied fields of illuminating engineering, photometry and colorimetry. It will help to understand the limits of the current photometric system and show possible development directions.

International Advisory Board

Dr. J. Horváth (Hungary)

Dr. J. Schanda (Hungary)

Dr. R. Köhler (BIPM)

Prof. Dr. H. Terstiege (Germany)

Mr. H-A Löfberg (Sweden)

Dr. F. Viénot (France)

Mr. J. Moore (United Kingdom)

Dr. P. Walraven (the Netherlands)

Registration

Registration fee: US\$ 200,-.

Please use the attached Registration Form or send your registration electronically, the electronic Registration Form can be found at

<http://cie.kee.hu/symp99>

Deadline for registration is 15 July 1999.

The Registration Fee should be submitted by 15 July 1999 to the CIE Central Bureau by bank transfer to the

CIE Bank Account No. 04610-665-450

at Bank für Arbeit u. Wirtschaft AG, Zweigstelle Landstrasse

Landstrasser Hauptstrasse 60

A-1030 Vienna/AUSTRIA

or by a bankers cheque to the CIE Central Bureau. Please indicate in both cases: "CIE '99 Symposium".

The following credit cards are also honoured:

VISA, Master Card, American Express.

In this case please indicate clearly the number and expiry date of your credit card.

Registration fee includes attendance at all sessions, Abstract Booklet, coffee-breaks and Get Together Party participation.

Meeting Schedule

The meeting will take place at the Central Building of the Hungarian Academy of Sciences, Roosevelt tér 9, 1051 Budapest.

The Symposium will start on 30 September at 14:00 hours with the Introductory Paper, followed by Invited and Contributed Papers.

On 30 September in the evening a get together party will be hosted by the Hungarian National Committee of the CIE, co-sponsored by the Hungarian lighting industry.

Further Invited and Contributed papers will be read on 1 and 2 October, with ample time for the Round Table Discussions.

On 1 October in the evening there will be an optional conference dinner. Details and costs will be announced later.

The Symposium will close on 2 October at lunch time.

For attendees who would like to extend their stay in Budapest for the week-end optional excursion programme will be offered.

Accommodation

The venue of the meeting is in the heart of the city, just at the centrally located Chain-Bridge (Lánchíd) on the Pest side of the Danube (Duna). There are many luxury and economy class hotels in the vicinity of Roosevelt tér. Please visit the URL:

www.hungary1.com/lodging.html

to find the lodging of your choice.

The attached part of a Budapest city map and list of hotels is for your convenience, it is not a recommendation of the Local Organising Committee. End of September is still a tourist season in Hungary, thus it is advised to book your accommodation in due course.

Local Organising Committee

Czeglédy, Gyula, Hungarian Academy of Sciences

Csapody, Miklós, GE-Tungsram

Debreczeni, Gábor, Secretary of CIE-Hungary

Hermann, Christine, CIE Central Bureau

Jáni, Valéria, Hungarian Lighting Society

Pollich, János, Hungarian Lighting Society

Poppe, Magdolna, Hungarian Lighting Society

Schanda, János, CIE-Hungary, Chair

Zana, János, CIE-Hungary

Mailing address:

Dr. J. Schanda

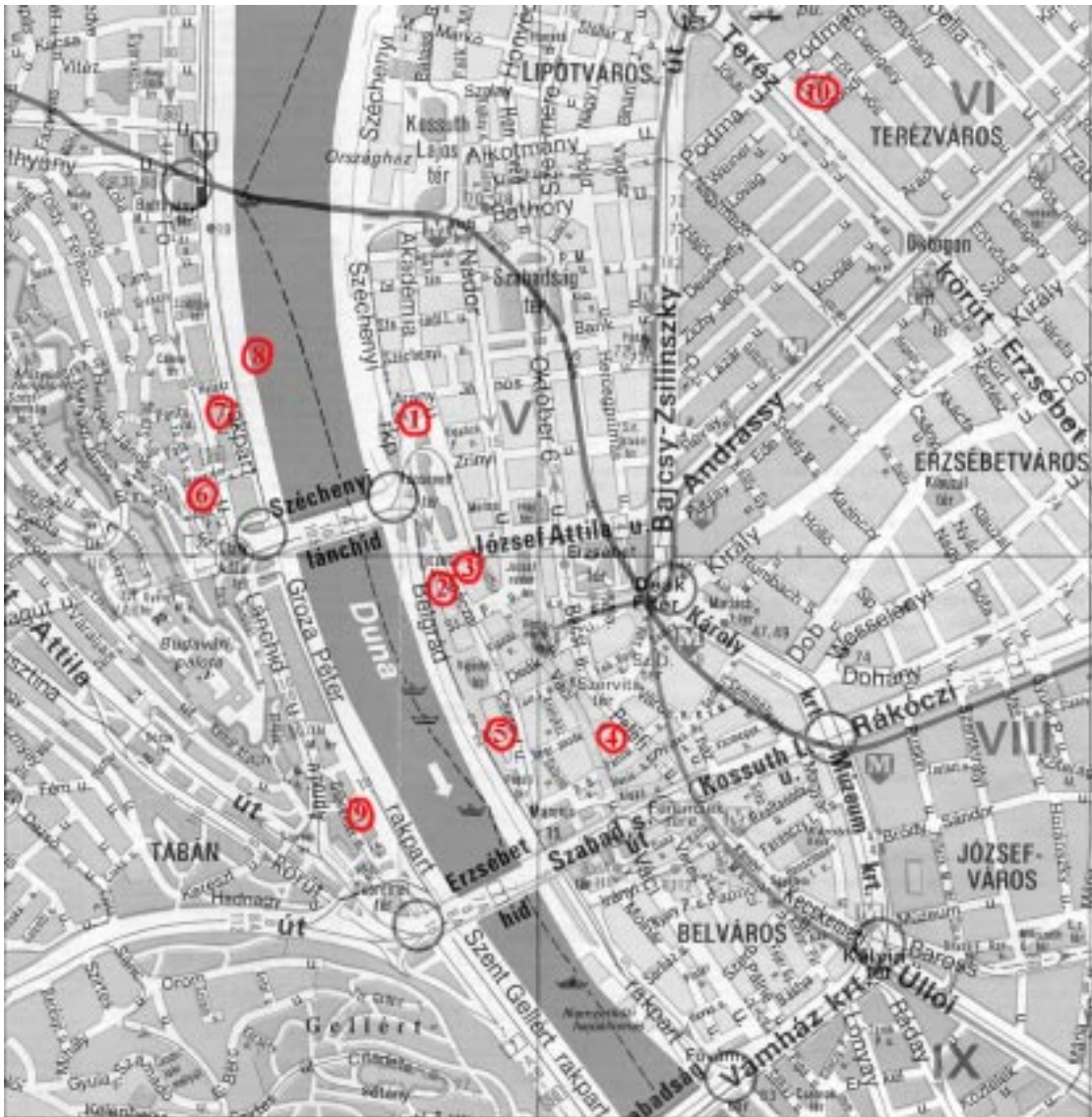
Szőnyeg u. 1

H-1011 Budapest

Fax: +361 342 5369

e-mail: schanda@ella.hu

Surroundings of the Hungarian Academy of Sciences with nearby hotels locations



1. **Central Building of the Hungarian Academy of Sciences, (HAS)**
1051 Budapest
Roosevelt tér 9,

Hotels in the vicinity of the HAS

2. **Hotel Inter-Continental Budapest, *******
1052 Budapest
Apáczai Csere János u. 12-14
Tel.: +36 1 327 6333
Fax: +36 1 327 6356
e-mail: budapest@interconti.com
<http://www.interconti.com>
3. **Atrium Hyatt Budapest, *******
1051 Budapest
Roosevelt tér 2
Tel.: +36 1 266-1234
Fax: +36 1 266-9101
e-mail: atriumhyatt@pannoniahotels.hu
<http://www.hyatt.com>
4. **Taverna Hotel, ******
1052 Budapest
Váci u. 20
Tel.: +36 1 338-4999
Fax: +36 1 318-7188
e-mail: hotel@hoteltaverna.hu
5. **Budapest Marriott Hotel, *******
1052 Budapest
Apáczai Csere János u. 4
Tel.: +36 1 266-7000
Fax: +36 1 266 5000
e-mail: pako@pronet.hu
<http://www.marriott.com>
6. **Alba Hotel, *****
1011 Budapest
Apor Péter u. 3.
Tel.: +36 1 375-9244
Tel.: +36 1 375-8658
Fax: +36 1 375-9899
7. **Victoria Hotel, ******
1011 Budapest
Bem rkp. 11.
Tel.: +36 1 457-8080
Fax: +36 1 457-8088
e-mail: victoria@victoria.hu
<http://www.victoria.hu>
8. **Dunapart Hotel, *****
1011 Budapest
Szilágyi Dezső tér alsó rkp.
Tel.: +36 1 355-9244
Tel.: +36 1 355 9001
Fax: +36 1 355-3770
9. **Orion Hotel, *****
1013 Budapest
Döbrentei u. 13.
Tel.: +36 1 356-8583
Tel.: +36 1 356-8933
Fax: +36 1 375-5418
10. **Radisson SAS Béke Hotel, ******
1067 Budapest
Teréz krt. 43
Tel.: +36 1 301-1600
Fax: +36 1 301 1615
e-mail: sales@budzh.rdsas.com
<http://www.danubiusgroup.com/hungarhotels/radisson.html>

Programme, Abstracts and Proceedings

The Abstracts of the Invited and Contributed Papers are available by clicking at the Author or Paper Title in the Programme.

Printed Programme and Abstract Booklet will be available for participants at the Symposium.

The Symposium Proceedings will be printed after the meeting. It is intended that it should contain the full texts of all Invited and Contributed Papers delivered by the authors at the meeting, together with short summaries of the Round Tables and the discussions.

You are kindly requested to indicate on your Registration Form whether you are interested in the Proceedings (price will be in accordance with the CIE Symposium price-list with a 50 % discount for meeting participants with advanced ordering). A CD-ROM version will be available as well..

Weather and entertainment in Budapest at the time of the meeting

End of September – early October is usually the “Indian Summer” period in Hungary. Thus day-time temperatures can be about 20°C, with night time low at about 10°C. But weather is rather unpredictable in Hungary, thus, please, be prepared also for some rainy days.

Budapest is one of the cultural capitals of Central-Europe, with many possibilities of entertainment and cultural visits. Our Local Organising Committee will be pleased to advise you on selecting your choice.

Travel to Budapest

Air: Budapest has a major international airport served by many airlines, including flights from Europe and beyond. MALEV is the national carrier, serving both European and Overseas destinations. For details and connection schedules visit

<http://www.malev.hu>

From the airport Budapest-Ferihegy there is a flat price Minibus service to any location within city limits.

Rail: Budapest is served by a number of railway stations, with good services from locations in Europe. Observe also Euro-Pass and other special fare possibilities.

Bus: There are also convenient international coach connections from many parts of Europe.

Visas

No visa is needed for Hungary for residents of most European countries and for a number of Overseas places. Nevertheless it is important that attendees check on whether a visa is needed. Visas are the responsibility of the attendees, and should be arranged for well in advance of the dates of journey. The Local Organising Committee will be pleased to send registered attendees a supporting letter to get their visa at the Embassy or Consulate of Hungary in their home countries.

Other meetings of interest

May we draw your attention to two further meetings that might be of interest to you and that are adjusted timewise to the Symposium:

17th Coloristic Symposium

The Coloristic Department of the Hungarian Chemical Society, in conjunction with the Hungarian National Committees of the CIE and of the AIC is organising the 17th Coloristic Symposium with international participation at Tata, near Budapest between 27 and 29 September 1999.

This symposium is the biannual meeting place of Hungarian scientists and engineers showing their latest results in the field of colorimetry. The language is Hungarian and English with simultaneous translation.

BalkanLight and Bulcolor

The Bulgarian Lighting Society and the Bulgarian Colour Association are organising an illuminating engineering meeting and a colour meeting in Varna, Bulgaria, on 6-8 and 8-10 Oct. 1999. For further details contact denima@omega.bg.

Registration Form

Please fill in and return the Registration Form printed on the next page not later than 15 July 1999 to the

CIE Central Bureau, Kegelgasse 27, A-1030 Vienna, AUSTRIA,
per mail or e-mail: ciecb@ping.at.

Copies of the 3rd Circular can be obtained also from the CIE WWW home page:
<http://www.cie.co.at/cie/home.html> and <http://cie.kee.hu/symp99>.



REGISTRATION FORM

I wish to attend the

CIE SYMPOSIUM '99, 75 years of CIE Photometry

Name:
(please print)

Occupation / Title:

Mailing address:

.....

City: Code:

Country:

Telephone: (.....)

Fax: (.....)

E-Mail:

I have remitted the Registration Fee

- per bank account transfer:

- with bankers cheque:

- Please charge my Credit Card: VISA, MasterCard, American Express:

Expiry date:

I am interested in buying the Proceedings of the meeting

- in printed form:

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.....

(signature) .

