



Simposium / Workshop

MAN AND THE LIGHT

Overview

The United Nations (UN) have proclaimed 2015 as the International Year of Light and Light-based Technologies (IYL 2015). The goal of IYL 2015 is to highlight to the citizens of the world the importance of light and optical technologies in their lives, for their futures and for the development of society. One of the founding partners of IYL 2015 is the European Physical Society (EPS). The Croatian Physical Society (CPS, in croatian: Hrvatsko fizikalno drustvo) as a member of EPS has also joined the celebration of the IYL 2015 by planning a series of activities throughout 2015. The central activity of the CPS is organizing a symposium/workshop entitled "Man and the Light". President of the Scientific Committee is dr. Vuko Brigljevic, the president of the CPS, and the president of the Organizing Committee is dr. Nazif Demoli, local coordinator of the CPS. All presentations are by invitations only. This event will be open to public and without fees for participation of national top scientists and the experts involved in optics. Details are given below and also in separate documents.

The symposium will be held under auspices of the Croatian Academy of Science and Art (<http://info.hazu.hr>). Five main sessions are integrated into the event programme and spread over the two days, from September 29 to 30. The sessions are: 1. Plenary lectures, 2. LIGHTtalk: The Power of Photonics, 3. Light in Science and Technology, 4. Light in the Medical Sciences, and 5. Light in art and culture. The Workshop and Exhibition will be held under auspices of the Museum of Contemporary Art (<http://www.msu.hr>), from October 1 to 4.

Summary

ORGANIZER	<i>Croatian Physical Society (CPS) (Bijenička cesta 32, Zagreb)</i>
CO-ORGANIZER	<i>Institute of Physics (IP) (Bijenička cesta 46, Zagreb)</i>
SCIENTIFIC COMMITTEE	President: <i>Vuko Brigljević</i> Members: <i>Slobodan Milošević, Goran Pichler, Vladimir Paar, Zrinka Tarle, Vilko Žiljak</i>
ORGANIZING COMMITTEE	President: <i>Nazif Demoli</i> Vice-Presidents: <i>Ognjen Milat, Nikša Krstulović, Mario Rakić</i> Members: <i>Anica Hrlec, Lana Skender, Damir Hoyka, Milorad Milun</i>
TARGET AUDIENCE	<i>Students and teachers, scientists, Academy members, representatives from the optical industry, others</i>



SYMPOSIUM Programme

VENUE *Croatian Academy of Sciences and Arts (CASA)*
(Strossmayer square 14, Zagreb)

DATE *September 29-30, 2015*

WEBSITE *<http://iyl2015.ifs.hr/simpozij-covjek-i-svjetlost/>*

Live streaming will be available during the symposium at:
<http://iyl2015.ifs.hr/simpozij-covjek-i-svjetlost/>

TUESDAY September 29, 2015

09:00 – 09:20	Opening ceremony – welcoming speeches
09:20 – 12:20	<p>Session 1: <i>Plenary lectures</i> Chair: V. Brigljević, Institute Ruđer Bošković, Zagreb</p> <p>01 09:20 <i>International year of light – an overview</i> N. Demoli, Institute of physics, Zagreb</p> <p>02 10:00 <i>Light sources: past, present, future</i> G. Pichler, CASA, Zagreb</p> <hr/> <p>10:40 Coffee break</p> <hr/> <p>Chair: G. Pichler, CASA, Zagreb</p> <p>03 11:00 <i>Light in dental medicine</i> Z. Tarle, School of Dental Medicine, Zagreb</p> <p>04 11:40 <i>Light in the graphic and visual arts</i> V. Žiljak, InfrareDESIGN and Faculty of Graphic Arts, Zagreb</p>
12:20 – 14:00	Lunch break
14:00 – 17:00	<p>Session 2: <i>LIGHTtalk: The Power of Photonics</i> Chair: M. Rakić, Institute of Physics, Zagreb</p> <p>05 14:00 <i>Cooperation of science and industry on the problems of transformation energy of light into electricity</i> D. Gracin, Institute Ruđer Bošković, Zagreb</p>



06	14:20	Modern trends in LED lighting A. Šribar, OSRAM, Croatia
07	14:35	Light based techniques in dental medicine V. Pandurić, Ivoclar Vivadent, Zagreb
	14:50	Coffee break
08	15:15	Modern spectroscopic techniques in the research process and the industry today K. Mesarek, Ansar-analitika, Zagreb
09	15:30	Contemporary LIDAR technology of the three-dimensional acquisition of spatial data Z. Novak, GEO3D, Varaždin
10	15:45	Principles of designing the lighting systems of facilities A. Štedul, Spekto, Zagreb
	16:00	Round table
17:00 – 19:00		Networking dinner

WEDNESDAY September 30, 2015

08:30 – 12:35		Session 3: Light in Science and Technology Chair: V. Paar, CASA, Zagreb
11	08:30	Notes on the nature of light M. Movre, Institute of Physics, Zagreb
12	08:45	Rainbow – in all colors and orders O. Milat, Institute of Physics, Zagreb
13	09:00	Colors of nanostructured systems and photonic crystals I. Aviani, Institute of Physics, Zagreb
14	09:15	What color is gold? P. Pervan, Institute of Physics, Zagreb
15	09:30	Light and the phenomenon of quantum entanglement M. Stipčević, CEMS – Photonics and Institute Ruđer Bošković, Zagreb
16	09:45	Photons and quantum cryptography M. Pavičić, CEMS – Photonics, Zagreb and Institut für Physik, Humboldt Universität zu Berlin
17	10.00	Light beam directing via metamaterials B. Okorn, CEMS – Institute Ruđer Bošković, Zagreb



	10:15	Coffee break
	Chair: M. Movre, Institute of Physics, Zagreb	
18	10:40	<i>Lasers: from basic principles to applications</i> N. Vujičić, Institute of Physics, Zagreb
19	11:00	<i>Light – a tool of the 21st century</i> N. Krstulović, Institute of Physics, Zagreb
20	11:20	<i>What the sunlight reveals to us</i> B. Vršnak, Faculty of Geodesy, Zagreb
21	11:35	<i>The bright side of the Universe</i> K. Pavlovski, Faculty of Science, Zagreb
22	11:50	<i>From micrography to nanoscopy</i> I. Weber, Institute Ruđer Bošković, Zagreb O. Milat, Institute of Physics, Zagreb
23	12:05	<i>Fiber optics technology and its role in the information revolution</i> M. Bosiljevac, Faculty of Electrical Engineering and Computing, Zagreb
24	12:20	<i>Light pollution</i> Ž. Andreić, Faculty of Mining, Geology and Petroleum Engineering, Zagreb
	12:35 – 14:00	Lunch break
	14:00 – 15:35	Session 4: <i>Light in the Medical Sciences</i> Chair: Z. Tarle, School of Dental Medicine, Zagreb
25	14:00	<i>Light and the eye</i> I. Dekaris, Svjetlost, Zagreb
26	14:20	<i>Influence of UV light on the skin</i> M. Buljan, School of Dental Medicine, Zagreb
27	14:35	<i>Light in dentistry - dental treatments</i> V. Šantak, Dom zdravlja Centar, Zagreb
28	14:50	<i>A real meaning of light in neurosurgery. No, it's not a laser surgery.</i> K. Rotim, D. Stipić, KBC Sestre Milosrdnice, Zagreb
29	15:05	<i>Light sources for teeth whitening</i> E. Klarić, School of Dental Medicine, Zagreb
30	15:20	<i>Interferometric analysis of loaded implant-abutment assemblies</i>



	J. Brozović, Dental practice dr. S. Brozović, Split
	15:35 Coffee break
16:00-17:50	<p>Session 5: Light in art and culture</p> <p>Chair: V. Žiljak, InfrareDESIGN and Faculty of Graphic Arts, Zagreb</p> <p>31 16:00 <i>From light to shadow – between philosophy and form</i> L. Skender, Academy of Arts, Osijek</p> <p>32 16:20 <i>Light as a medium in contemporary art</i> K. Puljiz, Academy of Arts, Osijek</p> <p>33 16:35 <i>Phosphorescent pigment in painting</i> M. Šošić, Faculty of Educational Sciences, Osijek</p> <p>34 16:50 <i>Photon revolutionist</i> D. Hoyka, Fotosofia, Zagreb</p> <p>35 17:05 <i>Light in the shadow of technology</i> D. Skira, Skira d.o.o., Pula</p> <p>36 17:20 <i>Sensation of sense</i> N. Cilinger, Faculty of Architecture, Zagreb</p> <p>37 17:35 <i>Man and the light: reflections and reflexions</i> A. Rašić, Academy of Fine Arts, Zagreb</p>
17:50 – 18:00	Conclusions and Closing Ceremony



WORKSHOP Programme

VENUE	<i>Museum of Contemporary Art (MCA)</i> (Dubrovnik Avenue 17 / BAUNET cafe, Zagreb)
DATE	<i>October 1-4, 2015</i>
OPENING TIMES	<i>11:00-18:00 Thursday, Friday, Sunday</i> <i>11:00-20:00 Saturday</i>
WEBSITE	<i>http://iyl2015.ifs.hr/simpozij-covjek-i-svjetlost/</i>

THURSDAY October 1 – SUNDAY October 4, 2015

Photo Exhibition	<p>Best photographs on the theme of light (from contest and other sources) In-charge: D. Hoyka, Fotosofia, Zagreb</p> <p>Best photographs made by <i>Wet Plate Collodion</i> technique In-charge: V. Hrpka, Academy of Arts, Osijek</p>
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THURSDAY 1 October, 2015

14:00 – 17:00	<p>Opening ceremony Moderators: O. Milat, Institute of Physics, Zagreb, A. Hrlec, High-school Vrbovec</p> <p>Workshop: <i>Wet Plate Collodion Technique</i> V. Hrpka, Academy of Arts, Osijek</p> <p>Interactive Exhibition: <i>Optics</i> H. Mesić, Prirodopolis, Zagreb</p>
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SUNDAY October 4, 2015

17:00 – 18:00	<p>Closing Ceremony Moderators: O. Milat, Institute of Physics, Zagreb, A. Hrlec, High-school Vrbovec</p>
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