



11<sup>th</sup> European Lighting Conference  
11. Europäischer Lichtkongress  
11<sup>ème</sup> Congrès Européen de la Lumière

# LUX EUROPA 2009 Istanbul

## 9-11 September

### Conference Sessions

#### Wednesday, 9 September 2009

09:00 - 10:30 Opening Session (Hall 1)

11:00 - 12:30 Lighting and the Environment (Hall 1)

11:00 - 12:30 Light for People at Work (Hall 2)

13:30 - 15:00 Sustainable Lighting (Hall 1)

13:30 - 15:00 Light for People at Work (Hall 2)

15:30 - 17:10 Health and Lighting (Hall 1)

15:30 - 17:10 Lighting Quality (Hall 2)

17:10 - 18:00 Poster Session

#### Thursday, 10 September 2009

09:00 - 10:35 Sustainable Lighting & Lighting and the Environment (Hall 1)

09:00 - 10:35 Lighting Quality (Hall 2)

11:05 - 12:35 Lighting and the Environment & Health and Lighting (Hall 1)

11:05 - 12:35 Lighting Quality (Hall 2)

13:35 - 14:55 Standards of Lighting (Hall 1)

13:35 - 14:55 Adaptive Lighting (Hall 2)

15:25 - 17:05 Measurement & Energy Efficiency (Hall 1)

15:25 - 17:05 Lighting in Architecture (Hall 2)

17:05 - 18:00 Poster Session

#### Friday, 11 September 2009

09:00 - 10:35 Lighting in Architecture (Hall 1)

09:00 - 10:35 Lighting in the Cities (Hall 2)

11:05 - 12:50 Lighting in the Cities (Hall 1)

11:05 - 12:50 Energy Efficiency (Hall 2)

13:50 - 15:45 Measurement (Hall 1)

13:50 - 15:45 Energy Efficiency (Hall 2)

15:50 - 16:30 Closing Ceremony (Hall 1)

### Preliminary Conference Program

#### Tuesday, 8 September 2009

15:00 Registration

19:00 Welcome Reception

# Wednesday, 9 September 2009

08:00 Registration & Setup of Poster

## Hall 1

## Hall 2

### 09:00 Opening Session

10:25 **Lux Europa: An attempt to collect and present facts, aims and history in the internet**  
DE Wolfgang Prah

### 10:30 Coffee Break

### 11:00 Lighting and the Environment

NL **A new method for the analysis of daylight access and view out**  
Hester Hellinga, Truus de Bruin-Hordijk

UK **Application of the useful daylight illuminance metric: a parametric evaluation covering 480 combinations of building type, climate and orientation**  
John Mardaljevic

SK **Exterior daylight illuminance and irradiance variability**  
Stanislav Darula, Richard Kittler

DE **The use of a full scale mock-up office room and scale model measurements to assess daylight performance**  
Andreas Löffler, Ursula Eicker, Sebastian Fiedler, Dilay Kesten

AT **Sky luminance mapping based on digital imaging and measured global horizontal illuminance**  
Bojana S. Brunner

#### Presented Poster

IT **The influence of the scale factor on the experimental analysis on the Double Light Pipe**  
Oreste Boccia, Fabrizio Chella, Paolo Zazzini

DK **Actual sky conditions simulated by a numerical sky model based on sky scanning by rotating half sphere**  
Anne Iversen, Toke R. Nielsen, Svend Svendsen

SK **Unconventional daylight transport to building interiors**  
Marek Krasnan, Stanislav Darula

### 12:30 Lunch Break

### 11:00 Light for People at Work

NL **Ultra high color temperature and visual performance**  
Mariëlle P.J. Aarts, Sanne J. van Velzen, Zara Huijbregts

DE **Subjective assessment of brightness depending on colour temperature**  
Cornelia Vandahl, Nora Gudd, Christoph Schierz

NL **Coloured light in offices: support or distraction?**  
Martine Knoop, Ruben Vanpol, Jettie Hoonhout

TR **An experimental study on the appraisal of an office setting with respect to illuminances and wall colors**  
Banu Manav, Rana K. Güvenkaya, Mehmet Ş. Küçükdoğu

SK **Survey of lighting systems in schools and educational buildings**  
Alfonz Smola, Dionyz Gasparovsky, Peter Janiga, Laszlo Pomothy

#### Presented Poster

UK **Time dependent effects of bright light exposure on school performance**  
Tommy Govén, Thorbjörn Laike, Peter Raynham, Kenan E. Şansal, Klas Sjöberg

TR **Examination of artificial lighting in classroom in terms of visual comfort and efficient energy use - The sample of Fmv Private Ayazağa Işık High School**  
Tuba Baskan, Müjgan Ş. Sözen

DE **General lighting with LEDs: changes, chances and challenges**  
Hans-Hasso Lange, Martine Knoop, Peter van der Burgt

## Wednesday - 9 September 2009

### Hall 1

#### 13:30 Sustainable Lighting

- UK **Sustainable quality lighting with PEC**  
Lou Bedocs
- Impact of self-sustainable rural household lighting - Case study of a typical Indian village**  
IN Radhakrishna S. Aithal, Anantharam P. Saralebettu, Chandrasekhara S. Adiga
- New lighting technologies in developing countries - Case Sudan**  
FI Ater Amogpai, Eino Tetri, Liisa Halonen
- Energy efficient lighting systems  
Consequences for environment, health and human factors**  
NO Knut I. Fostervold, Pål J. Larsen, Erlend Lillelien, Tor Mjøs, Morten O. Berg
- Innovative and sustainable lighting**  
DE Heinrich Kaase, Alfred Wacker
- Effects of parameters in road lighting cost calculation formulas**  
TR Özlem Özkızılkaya, Sermin Onaygil

### Hall 2

#### 13:30 Light for People at Work

- DE **Lighting for the elderly: physiological basics and their consequences**  
Christoph Schierz
- Beneficial non-visual effects of daylight, research into the influential parameters**  
NL Adrie de Vries, Mariëlle Aarts, Martine Knoop, Hugo Cornelissen
- Light up my day:  
A test of dynamic lighting effects on office workers' well-being in the field**  
NL Karin C. H. J. Smolders, Yvonne A. W. de Kort
- Dynamic lighting concept in Danish office environment with daylight contribution**  
DK Ásta Logadóttir, Jens Christoffersen
- Daylighting in office buildings**  
DE Paula Longato
- Presented Poster**
- From words to ambience: towards an architectural daylighting design based on users' perceptions and behaviours**  
DZ Azeddine Belakehal, Amar Bennadji, Kheira T. Aoul
- The use of natural light within the modern interior lighting systems**  
RO Cornel Bianchi, Camelia Burlacu
- Assessment of display visibility and readability in working environment through luminance mapping: an application to aircraft cockpits environment**  
IT Chiara Aghemo, Valerio R. M. Lo Verso, Anna Pellegrino, Caterina Petrigni, Laura Rossi

#### 15:00 Coffee Break

## Wednesday - 9 September 2009

### Hall 1

#### 15:30 Health and Lighting

- FR **Light-lighting and health**  
Christian Corbé, V. Valbin
- FR **De l'éclairage des lieux de travail à celui d'unités Alzheimer, l'importance de l'éclairage dynamique**  
Jean-Jacques Ezrati
- IT **Lighting design and study of colorimetric aspects in a day-rest home for people with Alzheimer's disease**  
Francesco Leccese, Giacomo Salvadori, Giuseppe Tuoni
- DE **Report on the 3rd DIN expert panel 2009 "Effect of light on human beings"**  
Andreas Wojtysiak, Dieter Lang, Soheil Moghtader
- NL **Comfortable lighting for seniors: the effect of illuminance and color temperature on the visual acuity in later life**  
Leonie M. Geerdinck, Bianca M. I. van der Zande, Ambali H. J. Talen, Thomas A. M. van Erp, Luc J.M. Schlangen

#### Presented Poster

- JP **Polychromatic properties of the pupillary light reflex in human subjects**  
Motoharu Takao, Yasuko Koga
- DE **Melatonin suppression by plasma light sources. Project PLACAR**  
Ruslan Kozakov, Heinz Schöpp, Horst Rudolph, Stefan Seltsmann, Dieter Kunz
- AT **Effects of highly insulating and sun protecting glazing on the Photobiological Indoor Conditions**  
Renate E. C. Hammer, Peter C. Holzer
- DE **Daylight for health and efficiency - A new career for an old friend**  
Ahmet Çakır
- SE **Visual ergonomics while sorting mail – a lighting intervention**  
Hillevi Hemphälä, Peder Wibom, Per Nylén

#### 17:10 Poster Session

#### 18:10 Bosphorus Cruise

### Hall 2

#### 15:30 Lighting Quality

- GR **Is the fovea vision only photopic?**  
Nickolas Bisketzis, Phaedra Topalis, Constantinos Bouroussis, Frangiskos Topalis
- NL **A quantitative study on the impact of light on the perceived atmosphere of an environment**  
Ingrid Vogels, Dragan Sekulovski, Ramon Clout, Roger Moors
- DE **Effect of inter-observer variability of colour vision on the colour quality of modern light sources**  
Peter Bodrogi, Anja Frohnapfel, Stefan Brueckner, Tran Q. Khanh
- FR **Perceived lighting quality of LEDs sources: visual experiment**  
Sophie Jost-Boissard, Marc Fontoyntont, Joachim Blanc-Gonnet
- DE **Spectra optimization with respect to different methods assessing the color rendering and biological effectiveness**  
Steffen Franke, Ruslan Kozakov

#### Presented Poster

- DE **Colour rendering of new white LED light sources – visual tests**  
Stefan Brueckner, Anja Frohnapfel, Peter Bodrogi, Tran Q. Khanh
- IT **On the LED colour rendering evaluation for works of art lighting**  
Natalia Bo, Paola Iacomussi, Giuseppe Rossi
- NL **The contribution of light to the atmosphere in retail applications**  
Peter van der Burgt, Esther de Beer, Simone Poort
- UK **Tuning lamp spectral power to improve the perception of interior spaces**  
Steve Fotios, Kevin Houser
- NL **Specifying light sources from a user perspective**  
Peter van der Burgt, Esther de Beer, Frank van den Berg, Leonce Poesen

## Thursday - 10 September 2009

### Hall 1

#### 09:00 Sustainable Lighting

UK **Hybrid lighting systems: a feasibility study for Europe**  
Mohammed S. Mayhoub, David Carter

SI **Complete analysis of the luminance measurements gained with sky scanner**  
Matej B. Kobav, Dominique Dumortier, Grega Bizjak

FR **Outdoor site-lighting performance: a comprehensive and quantitative framework for assessing light nuisance**  
Haldun Demirdes, Isabelle H. Gontard

#### Presented Poster

GR **Sustainable lighting design and the cities at night**  
Theodore D. Kontorigas

IT **Modelling of internal illuminance levels in a daylight test room using a simulation software**  
Massimo Paroncini, Francesco Corvaro, Giorgia Nardini, Sara Pistolesi

DE **Charakterisierung der Farbveränderungen von Elefanteneifenbein bei kontrollierter Exposition optischer Strahlung bestimmter Wellenlängenbereiche**  
Heiko Herzberg, Sirri Aydinli, Stephan Völker

DE **Tageslichtnutzung in Museen**  
Roman Jakobiak, Andreas Schulz

#### 10:05 Lighting and the Environment

HU **Der Tendenz in der Eisenbahnunterführungs- und -überführungsbeleuchtung in Europa**  
Ágnes Némethné-Vidovszky, Tamás Déri, Zsolt Hermes

TR **A qualitative analysis of spatial color design via energy efficiency and visual quality**  
Semiha Yilmazer, Sibel E. Ural

#### 10:35 Coffee Break

### Hall 2

#### 09:00 Lighting Quality

NO **Daylighting preferences of visually disabled and normally seeing people, a full-scale study in a room laboratory**  
Barbara Matusiak, Per Fosse

CN **Subjective evaluation of a side-lit office environment using analytic hierarchy process (AHP)**  
Tse-ming Chung, Roger T.H. Ng

DE **Design guidelines for glare-free daylight work environments**  
Werner Osterhaus

DE **Age effects on glare perception under daylight conditions**  
Jan Wienold, Cornelia Moosmann, Andreas Wagner, Volker Wittwer

IT **Assessment of discomfort glare in daylight rooms with shading devices: a comparison between measurement and simulation**  
Chiara Aghemo, Lauretta Chiaraviglio, Anna Pellegrino

#### Presented Poster

US **The adaptation of daylight glare probability to dynamic metrics in a computational setting**  
Siân Kleindienst, Marilynne Andersen

DE **Contrast evaluation on visual displays under daylight conditions**  
Niloofer Moghbel, Jan Wienold

DE **Vertical illuminance for visual communication**  
Carolin Liedtke, Paul W. Schmits

IT **Rehabilitation of the exhibition about "Sala delle Palme" (Palm Trees Hall)**  
Massimo Bizzaro, Silvia Valenti, Elena Pedrotti

## Thursday - 10 September 2009

### Hall 1

#### 11:05 Lighting and the Environment

DE **Sustainable off-grid solutions for developing countries**  
Reinhard Weitzel

##### Presented Poster

DK **Simulation of the influence of a master plan layout on the daylight availability and energy consumption for lighting in an office room**  
Anne Iversen, Toke R. Nielsen, Svend Svendsen

JP **Psychological influence of fluctuating light on human impression**  
Nobuyuki Yamamoto, Toshihiro Bando

DE **An efficient, pollution free and dimmable desk luminaire with innovative high power light emitting diodes**  
Peter Marx

DE **Approach to environment-friendly mercury-free HID lamps**  
Steffen Franke, Ralf Methling, Hartmut Schneidenbach, Heinz Schöpp, Lothar Hitzschke, Marko Käning, Bernhard Schalk

#### 11:40 Health and Lighting

UK **Office users response to lighting solutions employing variable lighting levels**  
Peter Thorns, Brian J. Hills

SE **The influence of ambient lighting on pupils in classrooms - considering visual, biological and emotional aspects**  
Tommy Govén, Thorbjörn Laike

US **Circadian effects of daylighting in a residential environment**  
Sharon Gochenour, Marilynne Andersen

##### Presented Poster

BE **Optimisation of the physical climate comfort in hospital bedrooms**  
Patrick C. Rombauts, Tine Moens

TR **A sustainable and healthy approach in hospital lighting**  
Sezin H. Tanrıöver

#### 12:35 Lunch Break

### Hall 2

#### 11:05 Lighting Quality

PT **Quality of natural light in Portuguese Architecture**  
Sara R. Rodrigues

FR **Tolerances in lighting**  
Jacques Lecocq, Jean-Paul Rami, Matthieu Gilbert

AT **Interactive lighting design with VIVALDI for optimized lighting solutions in balance of dynamic lighting quality, energy, cycle cost aspects**  
Bert Junghans, Birthe Tralau

RO **Lighting quality - an indoor environment component**  
Florin Pop, Horia F. Pop, Mihaela Pop

AT **Examination: Ergonomic Lighting Indicator in practise**  
Birthe Tralau, Peter Dehoff

UK **Developing a model to predict user acceptability of display screen reflections**  
Steve Fotios, Tharinee Ramasoot

## Thursday - 10 September 2009

### Hall 1

#### 13:35 Standards of Lighting

- DE **Progress report on CEN/TC 169 "Light and Lighting" and outlook**  
Soheil Moghtader, Dieter Schornick
- BE **Lobbying of the European lighting industry in Brussels - CELMA & ELC**  
Stéphanie Mittelham, Jürgen Sturm
- DE **CENSE: A joint European effort of bringing the EPBD and CEN 15193 into practise**  
Anna Staudt, Jan de Boer, Hans Erhorn
- FR **Alternatives to IES lights in lighting simulation softwares**  
Raphaël Labayrade, Marc Fontoyront
- Presented Poster**
- FR **Proposition for a museum lighting European norm**  
Jean-Jacques Ezrati
- TR **An assessment of solid state lighting standards and test procedures**  
Mükai Akbulut, Ersen Akdeniz, Ömer Gül
- NL **Optimum luminous intensities of traffic lights for day and night**  
Johan W.A.M. Alferdinck, Natasja van der Leden
- FR **Can standards help for the BEST efficient and sustainable LIGHTING?**  
Frédéric Guiraud

#### 14:55 Coffee Break

### Hall 2

#### 13:35 Adaptive Lighting

- CA **Strategies for wireless lighting control systems**  
Alexander Rosemann, Cristian Suvagau
- NO **Intelligent street lighting in Oslo, Norway**  
Eirik Bjelland, Tor Mjøs
- HU **New approach to lighting applications design**  
Péter Schwarcz
- IN **An approach to adaptive lighting system design**  
Suddhasatwa Chakraborty, Saswati Mazumdar
- TR **Road lighting automation strategies according to traffic speed and density**  
Sermin Onaygil, Burcu Büyükkınacı
- Presented Poster**
- NL **Interactive lighting design using coded light**  
Dragan Sekulovski, Lorenzo Feri, Tim Schenk, Jean-Paul Linnartz

## Thursday - 10 September 2009

### Hall 1

#### 15:25 Measurement

TR **Colour mixture of dissimilar fluorescent lamps**  
Leyla D. Öztürk, A. Kamuran Türkoğlu

UK **Evidence-based daylight research: development of a new visual comfort monitoring method**  
Birgit Painter, Denis Fan, John Mardaljevic

#### 15:55 Energy Efficiency

DE **LED-street lighting- technological, energy, lighting aspects and results of real tests on the roads**  
Thomas Kuhn, Christoph Schiller, Nils Haferkemper, Tran Q. Khanh

IT **The luminance coefficient in road lighting - a parameter for saving energy and reducing atmospheric pollution**  
Paola Iacomussi, Giuseppe Rossi, Paolo Soardo

DE **Messbarkeit der Wirkung unterschiedlicher spektraler Verteilungen von Lichtquellen bei kleinen Adaptationsleuchtdichten**  
Sören Schäfer, Franziska Kley, Stephan Völker

DE **Organic LEDs trends in general lighting & display technology**  
Roland Heinz

#### Presented Poster

DE **Neuheiten in der Reflektortechnik  
Chancen zur Senkung von Energiekosten**  
Detlef Duee, Matthias Weigert

DE **Intelligentes Energiesparen mit miniaturisierter Sensorik und optimierter Regelcharakteristik**  
Rainer Wreger

#### 17:05 Poster Session

#### 19:30 Gala Diner

### Hall 2

#### 15:25 Lighting in Architecture

IT **Appreciating Form. The Dancing Satyr of Mazara del Vallo**  
Piergiorgio Ceregioli

SI **Degraded light ambiances**  
Tomaz Novljan

IT **Measurement of the visual quality of a lit monument**  
Arturo Covitti

GR **Hotel lighting: a 24-hour a day balancing act**  
Theodore D. Kontorigas

GR **The use of LEDs in lighting design applications**  
Panagiota Hatziefstratiou, Peter Raynham

FR **100% LED designs**  
Christian Ferouelle, Vincent Laganier

#### Presented Poster

PL **The concept for the RYGB LED lumina**  
Zbigniew Turlej, Edmund Lisak, Stanisław Abramik, Wojciech Władziński

TR **A successive approach for asymmetrical reflector design**  
Selin Özmen, Leyla D. Öztürk

## Friday - 11 September 2009

### Hall 1

#### 09:00 Lighting in Architecture

**Assessing the Ottoman architecture in Jordan in terms of building envelope performance and related lit spaces: the case of um Qais - Jordan**  
 JO Hussain H. Alzoubi, Ahmad A. Freewan, Abdulsalam A. Alshboul

**A Simulation-based expert system for interactive daylighting design**  
 US Jaime Lee, Marilynne Andersen

**Lighting In museum buildings and investigation of a case study**  
 TR Feride Şener, Alpin K. Yener

#### Presented Poster

**The poetics of sacred light - a comparative study of the luminous environment in le Corbusier's Ronchamp and la Tourette**  
 UK Benson Lau

**Lighting design and regional pride**  
 IN Pradeep K. Bhagat

**CIE sky types frequencies all over Europe on www.satel-light.com**  
 FR Dominique Dumortier, Matej Kobav

**Daylight visualizer, an intuitive and user-friendly simulation tool for accurate daylighting performance predictions**  
 DK Nicolas Roy, Henrik W. Jensen, Per A. Andersen

**An evaluation on luminances of illuminated building surfaces**  
 TR Mujgan Ş. Sözen, Elif Geçioğlu

**Developing building regulations for courtyard house typologies based on daylight performance: the case of Amman - Jordan**  
 JO Abdulsalam A. Alshboul, Hussain H. Alzoubi, Ahmad A. Freewan

**Measurement and visual valuation of the shading of a bas relief**  
 IT Arturo Covitti

**Natural lighting of Aphrodisias museum's additional exhibition hall**  
 TR Müjgan Ş. Sözen, Rengin Ünver, Esra K. Özcan

**Novartis Campus: Eine Herausforderung zwischen architektonischem Anspruch und energetischen Anforderungen**  
 DE Andreas Schulz, Edwin Smida

**Effect of the artificial lights on the facade colours**  
 TR Mine Yavuz, Rengin Ünver

#### 10:35 Coffee Break

### Hall 2

#### 09:00 Lighting in the Cities

**Illumination of the Wawel Hill in Cracow**  
 PL Wojciech Żagan, Marcin Ciupak

**The urban lighting in Spain**  
 ES Nubi Leon Martinez

**Guide lines for a master plan of the urban lighting of Venezia**  
 IT Lorenzo Fellin, Pietro Fiorentin, Edoardo Tognon, Marina Vio, Alessandra Vivona

**Light as city furniture in Istanbul**  
 TR İpek Fitöz, Ferda Yüksel, Damla Altuncu, Nergiz Arifoğlu

#### Presented Poster

**How bright is our future?**  
 US Nathalie Rozot

**The impact of background lighting factors on the visual saliency of urban objects**  
 UK Navaz Davoudian, Steve Fotios

**Urban lighting master plans-setting rules not meeting standards**  
 DE Stephan Horn

**Lighting of cities with the electricity in the Ottoman Empire in the last quarter of 19th century and early 20th century**  
 TR Duygu A. Cin

**Architectural lighting of the seventeenth-century building "Logge dei Banchi" (Pisa, Italy) for the retraining of the pedestrian axis Leaning Tower - Railway Station**  
 IT Francesco Leccese, Giacomo Salvadori, Giuseppe Tuoni, Matteo Casini

**Urban lighting review of Adapazarı: What has changed in four years?**  
 TR Cenk Yavuz, Ertan Yanikoğlu

**Luminous flux radiated by public lighting to the upper hemisphere**  
 CZ Tomáš Novák, Karel Sokanský, Tomáš Maixner

## Friday - 11 September 2009

### Hall 1

#### 11:05 Lighting in the Cities

- Influence of scrolling luminaires (flicker effect) on the visibility in road lighting Perception survey on a sample of 69 people**  
FR Patricia Sajous
- “Flat beam” luminaires adapted to tunnel road lighting using LEDs and fluorescent tubes sources**  
FR Jean-Paul Rami, Jacques Lecocq, Joachim Leibig, David Manto
- Recommendations for floodlighting of bridges**  
RS Lidija S. Djokic, Miomir B. Kostic, Biljana L. Obradovic
- Lighting spectrum and obstacle detection for pedestrians**  
UK Steve Fotios, Chris Cheal
- Influence of mesopic lighting conditions on pedestrian visual field in urban environment**  
BE Justine Decuyper, Jean-Luc Capron, Michel Renglet
- Presented Poster**
- Design of efficient illuminated advertising signs**  
DE Udo Fischer, Veit Franke, Hans-Thomas Hansen, Viktor Keppler, Karl Kurz
- Monitoring of the quality of electrical energy in public lighting installations**  
SK Peter Janiga, Dionyz Gasparovsky
- On the lighting comfort parameters relating to pedestrian-mechanic connection routes to overcome the gap between historic centers and peripheral car parking areas: the case concerning the town of Volterra (Italy)**  
IT Francesco Leccese, Giacomo Salvadori, Giovanni Cuciniello
- Öffentliche Beleuchtung im Wandel und Potentiale zur Steigerung der Energieeffizienz**  
DE Mehmet Yeni, Eraldo Medda, Alain Floris
- Spectrum-balanced illuminance reductions for exterior lighting**  
UK Steve Fotios, Chris Cheal
- Optimizing parameters of street lighting systems designed by Small Target Visibility criteria**  
BG Stanimir Bl. Stefamov, Hristo N. Vasilev

#### 12.50 Lunch Break

### Hall 2

#### 11:05 Energy Efficiency

- An investigation on impacts of daylight control systems in terms of energy quality and energy saving**  
TR Önder Güler, Emre Erkin, Sermin Onaygil
- Windows as a low energy light source in residential buildings: Analysis of impact on electricity and heating demand**  
DK Peter Foldbjerg, Per Sahlin, Karsten Duer, Lars Ålenius
- Modelling daylight penetration through façade systems – Status quo and current developments**  
DE Jan de Boer, Simon Wössner
- Determination of real energy saving potential of daylight responsive systems: A case study**  
TR Cenk Yavuz, Ertan Yanıkoğlu, Önder Güler
- Integrated and cooperative systems to support natural lighting in non residential buildings**  
IT Franco Gugliermetti, Fabio Bisegna, Laura Monti
- A study on facade design for primary school classrooms in temperate and hot climates from the viewpoints of visual comfort and energy conservation**  
TR Rana Kutlu, Alpin Köknel Yener, Mehmet Ş. Küçükdoğu
- Presented Poster**
- Energy savings from photosensors and occupant sensors/wall switches on a college campus**  
CA Benjamin J. Birt, Guy R. Newsham
- Optimizing the position and the field of view of photosensors in daylight responsive systems**  
GR Lambros T. Doulos, Aris E. Tsangrassoulis, Frangiskos V. Topalis
- Energy savings due to occupancy sensors and personal controls: A pilot field study**  
CA Anca D. Galasiu, Guy R. Newsham

# Friday - 11 September 2009

## Hall 1

### 13:50 Measurement

- DE **Lichtstärke und Lichtstrom: Weitergabe der KCRV (Key Comparison Reference Values) in den EURAMET-Bereich**  
Detlef Lindner, Armin Sperling, M. Lindemann
- DE **Leuchtdichtekoeffizienten von Straßenoberflächen für kleine Anstrahlwinkel und deren Anwendung zur Bestimmung von Scheinwerfergütemerkmalen**  
Susanne Köhler, Stephan Völker
- IT **Why testing the road lighting? A system for their evaluation**  
Lorenzo Fellin, Pietro Fiorentin, Alessandro Scroccaro
- GR **Automated luminance measurements of tunnel and road lighting installations**  
Constantinos A. Bouroussis, Frangiskos V. Topalis
- FR **A simple method for easy determination of the average luminance coefficient "q<sub>0</sub>" of road surfaces in road lighting**  
Haldun Demirdes
- DE **Measuring systems for spectral radiometric and photometric characterisation of LEDs**  
Zeynep Özver-Krochmann, Tran Q. Khanh
- Presented Poster**
- DE **A Novel "in-situ" measuring equipment for determination of photometric parameters of road surfaces**  
Bernd Panhans, Jan de Boer, Andreas Otto, Frohmut Wellner
- TR **Realization of the luminance unit**  
Yusuf Çalkın, A. Kamuran Türkoğlu
- DE **A new two mirror two detector goniophotometer (Go-2M2D)**  
Peter Marx, Jiangen Pan
- TR **Maintenance and dissemination of candela at UME**  
A. Kamuran Türkoğlu, Yusuf Çalkın, Özcan Bazkır
- IT **Application of an imaging spectro-chroma meter in art conservation**  
Lorenzo Fellin, Pietro Fiorentin, Elena Pedrotti, Alessandro Scroccaro

### 15:50 Closing Ceremony

## Hall 2

### 13:50 Energy Efficiency

- DE **Determination of the Lighting Energy Numeric Indicator (LENI) in the lighting design process**  
Friedrich W. Bremecker
- FI **Guidebook on energy efficient electric lighting for buildings**  
Eino Tetri, Liisa Halonen
- BE **The use of energy efficient lighting in dwellings - Challenges and potentials**  
Arnaud Deneyer, Peter D'Herdt, Benoit Roisin, Magali Bodart
- RO **Romanian CFL campaign for energy efficient lighting in residential buildings**  
Dorin Beu, Florin Pop
- AT **Energy efficient electric lighting**  
Wilfried Pohl
- Presented Poster**
- BE **Energy efficiency in lighting**  
Subba R. Mekala
- SK **Potential of energy savings in the framework of energy certification of buildings**  
Dionyz Gasparovsky, Alfonz Smola, Peter Janiga
- TR **Lighting in hotels at Antalya: Is It efficient enough?**  
Emre Erkin, Ebru A. Meylani, Sermin Onaygil
- DE **Optimizing the energy efficiency of LED luminaires**  
Mario Druwe, Heinrich Kaase
- DE **Intelligent operation of energetic optimised buildings by use of energy-efficient intelligent Dimming -ECG and Bus-Systems**  
Johann Herdl
- TR **The utilization of LEDs in automotive industry and a case study from Turkey**  
Sezen Yıldırım, Ufuk Demir
- CZ **Energy savings in the public lighting**  
Karel Sokanský, Tomáš Novák, František Dostál
- AU **Improving the energy efficiency of road lighting in Australia**  
Alec J. Fisher, Stephen E. Jenkins