

Third International Workshop on Quality of Multimedia Experience



QoMEX 2011

Mechelen, Belgium
September 7-9, 2011

Organized by
Interdisciplinary Institute for Broadband Technology
(IBBT)

Sponsored by



Welcome Message

The third International Workshop on Quality of Multimedia Experience (QoMEX) brings together leading professionals and scientists who are developing methods for evaluating multimedia quality and user experience. Typically, multimedia processing algorithms are evaluated using objective metrics or through subjective testing in a controlled environment. However, perceived user experience is psychological in nature and changes in different environmental and social conditions and with different multimedia devices. Therefore, new techniques are needed to assess and enhance multimedia experience from the user perspective. QoMEX 2011 features oral presentations, panel and poster sessions in order to provide attendees with various channels to exchange and acquire information about the latest developments and future trends in the field of multimedia user experience.

Previous editions of the International Workshop on Quality of Multimedia Experience (QoMEX) took place in 2009 in San Diego, California and in 2010 in Trondheim, Norway. Both workshops were a great success and an inspiring experience for its participants.

Mechelen, a thousand year old city in the center of Flanders, located in between Antwerp and Brussels, will be the host location of this year's workshop. The workshop is organized by the Interdisciplinary Institute for Broadband Technology (IBBT), an independent research institute founded by the Flemish government to stimulate ICT innovation. IBBT unites more than 1000 ICT researchers from the universities of Antwerp, Brussels, Ghent, Hasselt and Leuven and brings together companies, authorities, and non-profit organizations to join forces on research projects. QoMEX is also supported by the COST Action Qualinet, a European network on quality of experience in multimedia systems and services.

QoMEX 2011 received 80 submitted papers from authors of not less than 29 countries. These papers were subjected to a review process that involved the Organizing and Technical Committee members accompanied by a significant set of additional reviewers all together accounting for 139 experts. On average 3.75 reviews have been received per paper with a minimum of 3 reviews per paper. Finally, 36 papers have been accepted for the conference, which represents an acceptance rate of 45%. Hence, we can safely state that QoMEX 2011 targeted high quality standards. The conference also features a Best Paper and Best Student Paper Award sponsored by Barco. Moreover, we are also proud to announce that QoMEX received the multi-year Technical Co-sponsorship label from the IEEE Signal Processing Society indicating that even within the short period this conference has surfaced, we have already met the high expectations of the IEEE Signal Processing Society. Hence, we would like to congratulate the previous chairs of QoMEX conferences: Prof. Touradj Ebrahimi (EPFL), Dr. Khaled El-Maleh (Qualcomm), Prof. Andrew Perkis (NTNU), Prof. Sebastian Möller (TU Berlin/ Deutsche Telekom Laboratories), and their teams for their vision and contribution to this achievement. As a consequence all papers – as previous years – will be published in the IEEE Xplore digital library and listed in the Web of Science.

QoMEX 2011 features 4 plenary talks, 4 lecture sessions and 2 poster sessions. We are especially honored to welcome as plenary speakers Prof. Nasir Memon from New York University, Prof. Arnold Vermeeren from TU Delft, Prof. Effie Law from the University of Leicester and ETH Zurich, Prof. Karlheinz

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Brandenburg from the Ilmenau University of Technology and the Fraunhofer Institute for Digital Media Technology and Dr. Cédric Marchessoux from Barco. Their presentations will cover the interdisciplinary domain of multimedia quality assessment. QoMEX 2011 aims at stimulating the interaction between conference participants and especially supports young researchers in the field. A special session of short talks will be organized to allow for sharing bright insights and visions and to initiate scientific collaborations between potentially unexpected parties. We hope many participants will challenge their colleagues. Finally, QoMEX 2011 will conclude with an Industrial Forum – hosted by the Qualinet consortium – that focuses on quality of experience in applications, standardization and certification. This forum targets academic and industrial collaboration and is moderated by Prof. Fernando Pereira from the Instituto Superior Técnico – Instituto de Telecomunicações of Lisbon. We are delighted to welcome as panel members Dr. Arthur Webster from the National Telecommunications and Information Administration's Institute for Telecommunication Sciences, USA, Prof. Ingrid Heynderickx from Philips Research Laboratories, The Netherlands, Prof. Karlheinz Brandenburg from the Institute for Media Technology at Ilmenau University of Technology and the Fraunhofer Institute for Digital Media Technology, Germany and Prof. Touradj Ebrahimi from EPFL, Switzerland.

We would like to take the opportunity to express our appreciations to a number of key people that shaped QoMEX 2011. In particular, the backbones of every conference the Technical Program Co-Chairs: Dr. Gabriel Cristobal, Prof. An Jacobs and Prof. Alexander Raake, and the Local Arrangement, Publicity and Financial Chairs: Prof. Joeri Barbarien, Karen Boers, Karin De Bruyn and Prof. Ann Doods, Prof. Lina Karam and Prof. Henry Wu. We also would like to thank our webmasters, Mr. Tim Bruylants and Mr. Frederik Temmermans. Finally, we are grateful to all members of the QoMEX 2010 Organizing and Steering Committee, the members of our Technical Committee and Awards Committee, Plenary Speakers and Panel, as well as our reviewers who guaranteed the realization of an exciting technical program. A list of these individuals is available in the QoMEX 2011 proceedings and on the website (www.qomex2011.org), and we express our sincere thanks to their voluntary support.

Finally, we are grateful to our Financial and Award Sponsors: IBBT, COST Qualinet and Barco without whom we could not have offered you this inspiring workshop. In addition, we would like to thank our Technical Sponsors IEEE and the IEEE Signal Processing Society for the support and help the last year. Last but not least, we would like to acknowledge the efforts of all submitters, contributors, and participants to QoMEX 2011, without whom this workshop would not have been possible. We hope QoMEX 2011 will be an exciting workshop that will expand and deepen your expertise, that will enable you to meet many interesting people and that will inspire your future work. Welcome to QoMEX 2011!

Prof. Peter Schelkens, General Chair

Dr. David Geerts, General Co-Chair

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Thomas Zinner (University of Wuerzburg, Germany)
Vladimir Zlokolica (University of Novi Sad, Serbia)

Technical Program

Wednesday, September 7

9:00 – Opening Ceremony

Room: Auditorium

9:15 – Keynote Talk on 'Image Forensics'

Chair: Gabriel Cristobal (Spanish National Research Council, Spain)

Room: Auditorium



Lecturer: Nasir Memon (Polytechnic Institute of New York University, USA)

Abstract: We find ourselves today in a "digital world" where most information is created, captured, transmitted, stored, and processed in digital form. Digital information permeates every aspect of our daily lives. Although representing information in digital form has many compelling technical and economic advantages, it has led to new issues and significant challenges when performing forensics analysis of digital evidence.

The last few years have seen much research in the young and emerging subjects of Image and Video Forensics. The topic is inherently multi-disciplinary involving computer science and engineering, signal processing, and criminal justice at the very least. This talk provides an overview of this emerging area and Nasir Memon is a Professor in the computer science department at the Polytechnic Institute of New York University, New York. He is the director of the Information Systems and Internet Security (ISIS) lab at Polytechnic (isis.poly.edu).

10:15 – Coffee Break

10:45 – Lecture Session on 'QoE: How to Define, Assess and Apply?'

Chair: Sebastian Möller (TU Berlin, Deutsche Telekom Laboratories, Germany)

Room: Auditorium

10:45 TOWARDS ASSIGNING VALUE TO MULTIMEDIA QOE

Miguel A. Ríos Quintero (Technical University of Berlin & Deutsche Telekom Laboratories, Germany); Alexander Raake (Deutsche Telekom Laboratories / Berlin University of Technology, Germany)

Third International Workshop on Quality of Multimedia Experience (QoMEX 2011)

11:10 OPEN PROFILING OF QUALITY: PROBING THE METHOD IN THE CONTEXT OF USE

Dominik Strohmeier (Ilmenau University of Technology, Germany); Satu Jumisko Pyykkö (Tampere University of Technology, Finland); Katja Eulenberg (Ilmenau University of Technology, Germany)

11:35 COMBINATION OF PHYSIOLOGICAL AND SUBJECTIVE MEASURES TO ASSESS QUALITY OF EXPERIENCE FOR AUDIOVISUAL TECHNOLOGIES

Julie Lassalle (Telecom Bretagne & Orange Labs, France); Laetitia Gros (France Telecom R&D, France); Gilles Coppin (Telecom Bretagne, France)

12:00 QOE-DRIVEN MOBILITY MANAGEMENT - INTEGRATING THE USERS' QUALITY PERCEPTION INTO NETWORK-LEVEL DECISION MAKING

Martin Varela (VTT - Technical Research Centre of Finland, Finland); Jukka-Pekka Laulajainen (VTT Technical Research Centre of Finland, Finland)

12:30 – Lunch

14:00 – Lecture Session on '2D, 3D and Interactive Video QoE'

Chairs: Thomas Richter (University of Stuttgart, Germany) and Wendy Van den Broeck (Vrije Universiteit Brussel - IBBT, Belgium)

Room: Auditorium

14:00 SUBJECTIVE QUALITY ASSESSMENT OF SCALABLE VIDEO CODING: A SURVEY

Jong-Seok Lee (EPFL, Switzerland); Francesca De Simone (EPFL, Switzerland); Touradj Ebrahimi (EPFL, Switzerland)

14:25 NO-REFERENCE VIDEO QUALITY ASSESSMENT FOR SD AND HD H.264/AVC SEQUENCES BASED ON CONTINUOUS ESTIMATES OF PACKET LOSS VISIBILITY

Savvas Argyropoulos (Deutsche Telekom Laboratories, Germany); Alexander Raake (Deutsche Telekom Laboratories / Berlin University of Technology, Germany); Marie-Neige Garcia (Deutsche Telekom Laboratories / Berlin University of Technology, Germany); Peter List (Deutsche Telekom Laboratories, Germany)

14:50 SUBJECTIVE CHARACTERISTICS FOR STEREOSCOPIC HIGH DEFINITION VIDEO

Kazuhisa Yamagishi (NTT, Japan); Lina Karam (Arizona State University, USA); Jun Okamoto (NTT, Japan); Takanori Hayashi (NTT, Japan)

15:15 ON THE WAY TO HIGH-QUALITY VIDEO CALLS IN FUTURE MOBILE NETWORKS

Blazej Lewcio (Deutsche Telekom Laboratories, Berlin University of Technology, Germany); Benjamin Belmudez (TU Berlin, Deutsche Telekom Laboratories, Germany); Theresa Enghardt (TU Berlin & Deutsche Telekom Laboratories, Germany); Sebastian Möller (TU Berlin, Deutsche Telekom Laboratories, Germany)

15:40 – Coffee Break

16:10 – Poster Session on 'Visual Quality Metrics and Models'

Chair: Milos Klima (Czech Technical University in Prague, Czech Republic)

Room: Dijlezaal

DESIGN OF NO-REFERENCE VIDEO QUALITY METRICS WITH MULTIWAY PARTIAL LEAST SQUARES REGRESSION

Christian Keimel (Technische Universität München, Germany); Julian Habigt (Technische Universität München, Germany); Manuel Klimpke (Technische Universität München, Germany); Klaus Diepold (Technische Universität München, Germany)

SPATIAL FLICKER EFFECT IN VIDEO SCALING

Pengpeng Ni (Simula Research Laboratory & University of Oslo, Norway); Ragnhild Eg (Simula Research Laboratory, Norway); Alexander Eichhorn (Simula Research Laboratory, Norway); Carsten Griwodz (Simula Research Laboratory, Norway); Pål Halvorsen (Simula Research Laboratory & Department of Informatics, University of Oslo, Norway)

STANDARDIZED TOOLCHAIN AND MODEL DEVELOPMENT FOR VIDEO QUALITY ASSESSMENT - THE MISSION OF THE JOINT EFFORT GROUP IN VQEG

Nicolas Staelens (Ghent University - IBBT, Department of Information Technology, Belgium); Iñigo Sedano (Acreo AB - NetLab: IPTV, Video and Display Quality, Sweden); Marcus Barkowsky (University of Nantes, France); Lucjan Janowski (AGH University of Science and Technology, Poland); Kjell Brunnström (Acreo AB - NetLab: IPTV, Video and Display Quality, Sweden); Patrick Le Callet (Polytechnique Nantes, France)

QUALITY EVALUATION OF STEREOSCOPIC VIDEOS USING DEPTH MAP SEGMENTATION

Selim S Sarikan (Middle East Technical University, Turkey); Ramazan Olgun (Middle East Technical University, Turkey); Gozde B Akar (Middle East Technical University, Turkey)

A MULTI-METRIC FUSION APPROACH TO VISUAL QUALITY ASSESSMENT

Tsung-Jung Liu (University of Southern California, USA); Weisi Lin (Nanyang Technological University, Singapore); C.-C. Jay Kuo (University of Southern California, USA)

NO-REFERENCE IMAGE VISUAL QUALITY ASSESSMENT USING NONLINEAR REGRESSION

Martin Dimitrievski (Faculty of Electrical Engineering and Information Technologies, Skopje & DIPteam, Macedonia)

SPATIAL-TEMPORAL VIDEO QUALITY METRIC BASED ON AN ESTIMATION OF QOE

Seyed Ali Amirshahi (XLIM-SIC, France); Chaker Larabi (Université de Poitiers & XLIM-SIC, France)

VIDEO QUALITY ASSESSMENT BY DECOUPLING ADDITIVE IMPAIRMENTS AND DETAIL LOSSES

Songnan Li (The Chinese University of Hong Kong, Hong Kong); Lin Ma (Department of Electronic Engineering, The Chinese University of Hong Kong, Hong Kong); King N. Ngan (Chinese University of Hong Kong, Hong Kong)

EFFICIENT FRAME COMPLEXITY ESTIMATION AND APPLICATION TO G.1070 VIDEO QUALITY MONITORING

Beibei Wang (Dialogic Research Inc., USA); Dekun Zou (Dialogic, USA); Ran Ding (Dialogic, USA); Tao Liu (Dialogic Research Inc., USA); Sitaram Bhagavathy (Dialogic Research Inc, USA); Niranjana Dayanand Narvekar (Dialogic Research Inc. & Arizona State University, USA); Jeffrey Bloom (Dialogic Research Inc., USA)

FRAME-LAYER PACKET-BASED PARAMETRIC VIDEO QUALITY MODEL FOR ENCRYPTED VIDEO IN IPTV SERVICES

Marie-Neige Garcia (Deutsche Telekom Laboratories / Berlin University of Technology, Germany); Alexander Raake (Deutsche Telekom Laboratories / Berlin University of Technology, Germany)

Thursday, September 8

9:00 – Keynote Talk on 'Good User Experience: Yes! But what is it?'

Chair: David Geerts (KULeuven / IBBT, Belgium)

Room: Auditorium



Lecturers: Arnold Vermeeren (TU Delft, The Netherlands) & Effie Law (University of Leicester, UK)

Abstract: Wow! This interaction feels good! – Meeting those people at QoMEX was a real good experience! – It is such a good experience always being able to go online and having my Apps available wherever I am, whenever I want! – It felt so good having the new iPad2 before everybody else had it!

User experience (UX) is booming! UX is a buzzword: professionals, marketing specialists, researchers, and teachers have all started using the term. The examples in the first lines refer to different ways of using the term. It can relate to how one feels during an ongoing activity (Wow!), to reflective feelings after an activity (having met people at QoMEX), to even longer periods in one's life, including periods of using and not using a product (wherever, whenever), or to just possessing a product (iPad2). Moreover, UX is sometimes related to usability, to aesthetics, to social status, and the list is endless. There is no consensus on the scope of UX. This hinders the development or choice of appropriate UX design methods and methods for evaluating UX quality. In a series of scientific events and efforts we have aimed at developing a shared understanding, scoping and definition of UX from theoretical and practical perspectives. Our most recent activity consisted of organizing a three-day Dagstuhl seminar in which some 30 invited UX experts participated with the aim to converge on their understandings of what UX is. This has resulted in a UX White Paper describing the core concepts of UX. In our presentation we will discuss these core concepts, and illustrate how these can provide structure to the variety of UX design methods and methods for evaluating UX quality issues as well as inform the future work on UX.

10:00 – Coffee Break

10:30 – Lecture Session on 'Audio(-visual) QoE'

Chair: Ulrich Reiter (Norwegian University of Science and Technology (NTNU), Norway)

Room: Auditorium

10:30 A NEW DIMENSION-BASED FRAMEWORK MODEL FOR THE QUALITY OF SPEECH COMMUNICATION SERVICES

Sebastian Möller (TU Berlin, Deutsche Telekom Laboratories, Germany); Jens Berger (SwissQual AG, Zuchwil, Switzerland); Alexander Raake (Deutsche Telekom Laboratories / Berlin University of Technology, Germany); Marcel Wältermann (Deutsche Telekom Laboratories, Berlin Institute of Technology, Germany); Benjamin Weiss (TU Berlin, Germany)

10:55 SUBJECTIVE VISUAL QUALITY ASSESSMENT IN THE PRESENCE OF AUDIO FOR DIGITAL CINEMA

Fitri N. Rahayu (The Norwegian University of Science and Technology (NTNU), Norway); Ulrich Reiter (Norwegian University of Science and Technology (NTNU), Norway); Junyong You (Norwegian University of Science and Technology, Norway); Andrew Perkis (NTNU, Norway); Touradj Ebrahimi (EPFL, Switzerland)

11:20 A CONVERSATION ANALYTIC APPROACH TO THE PREDICTION OF LEADERSHIP IN TWO TO SIX-PARTY AUDIO CONFERENCES

Katrin Hoeldtke (Deutsche Telekom Laboratories / Berlin University of Technology, Germany); Alexander Raake (Deutsche Telekom Laboratories / Berlin University of Technology, Germany); Janto Skowronek (Deutsche Telekom Laboratories / Berlin University of Technology, Germany)

11:45 EXPLORING THE ACCEPTABILITY OF THE AUDIOVISUAL QUALITY FOR A MOBILE VIDEO SESSION BASED ON OBJECTIVELY MEASURED PARAMETERS

Toon De Pessemier (University of Ghent, Belgium); Katrien De Moor (MICT-IBBT-Ghent University, Belgium); Adrián Juan Verdejo (University of Ghent, Belgium); Davy Van Deursen (Ghent University - IBBT, Belgium); Wout Joseph (Ghent University, Belgium); Lieven Demarez (Ghent University, Belgium); Luc Martens (Ghent University, Belgium)

12:10 – Lunch

13:40 – Poster Session on 'Perception & Testing'

Chair: Ian Burnett (RMIT University, Australia)

Room: Dijlezaal

SOS: THE MOS IS NOT ENOUGH!

Tobias Hoßfeld (University of Wuerzburg, Germany); Raimund Schatz (Telecommunications Research Center Vienna (FTW), Austria); Sebastian Egger (Telecommunications Research Center Vienna (FTW) & Signal Processing and Speech Communication Laboratory, Graz University of Technology, Austria)

*COMPARISON OF TWO MIXED METHODS APPROACHES FOR MULTIMODAL QUALITY EVALUATIONS:
OPEN PROFILING OF QUALITY AND CONVENTIONAL PROFILING*

Kristina Kunze (Fraunhofer IDMT, Germany); Dominik Strohmeier (Ilmenau University of Technology, Germany); Satu Jumisko Pyykkö (Tampere University of Technology, Finland)

MULTIMEDIA USER FEEDBACK BASED ON AUGMENTING USER TAGS WITH EEG EMOTIONAL STATES

Stephen Davis (University of Wollongong, Australia); Eva Cheng (RMIT University, Australia); Ian Burnett (RMIT University, Australia); Christian H Ritz (University of Wollongong, Australia)

SUBJECTIVE QUALITY FACTORS IN PACKET 3D VIDEO

Luis Pinto (Polytechnic Institute of Leiria / Instituto de Telecomunicacoes, Portugal); Joao Carreira (Polytechnic Institute of Leiria / Instituto de Telecomunicacoes, Portugal); Sérgio M. M. Faria (Institute of Telecommunications & Polytechnic Institute of Leiria, Portugal); Nuno Rodrigues (IPL/Institute of Telecommunications, Portugal); Pedro A. Amado Assuncao (Polytechnic Institute of Leiria / Instituto de Telecomunicacoes, Portugal)

*THE INFLUENCE OF RELATIVE DISPARITY AND PLANAR MOTION VELOCITY ON VISUAL DISCOMFORT
OF STEREOSCOPIC VIDEOS*

Jing Li (University of Nantes & IRCCyN, France); Marcus Barkowsky (University of Nantes, France); Patrick Le Callet (Polytechnique Nantes, France)

SUBJECTIVE COMPARISON OF TEMPORAL AND QUALITY SCALABILITY

Jari Korhonen (Technical University of Denmark, Denmark); Ulrich Reiter (Norwegian University of Science and Technology (NTNU), Norway); Junyong You (Norwegian University of Science and Technology, Norway)

HOW THE TASK OF EVALUATING IMAGE QUALITY INFLUENCES VIEWING BEHAVIOR

Hani Alers (Delft University of Technology, The Netherlands); Lennart Bos (Delft University of Technology, The Netherlands); Ingrid Heynderickx (Philips Research Laboratories, The Netherlands)

CONTRAST EFFECT ON 3D AND 2D VIDEO PERCEPTION

Zicong Mai (University of British Columbia, Canada); Mahsa T. Pourazad (TELUS Communications Company, Canada); Panos Nasiopoulos (University of British Columbia, Canada)

IMPACT OF END DEVICES ON SUBJECTIVE VIDEO QUALITY ASSESSMENT FOR QCIF VIDEO SEQUENCES

Asiya Khan (University of Plymouth, United Kingdom); Lingfen Sun (University of Plymouth, United Kingdom); Jose Oscar Fajardo (University of the Basque Country, Spain); Ianire Taboada (University of the Basque Country, Spain); Fidel Liberal (University of the Basque Country, Spain); Emmanuel Ifeachor (University of Plymouth, United Kingdom)

TOWARDS AN INTER-OBSERVER ANALYSIS FRAMEWORK FOR MULTIMEDIA QUALITY ASSESSMENT

Ulrich Engelke (University of Nantes, France); Yohann Pitrey (University of Nantes, France); Patrick Le Callet (Polytechnique Nantes, France)

15:10 Coffee Break

15:40 – Short Scientific Talks

Chairs: Ann Dooms (Vrije Universiteit Brussel - IBBT, Belgium) & Wendy Van den Broeck (Vrije Universiteit Brussel - IBBT, Belgium)

Room: Dijlezaal

FROM PACKET LOSS TO ROLE-PLAY

Jeroen Vanattenhoven (K.U.Leuven / IBBT, Belgium)

COMPARING AUDIO/VISUAL QUALITY EVALUATION METHODS

Kristina Kunze (Fraunhofer-Institut Digitale Medientechnologie, Germany)

NO-REFERENCE BLUR ESTIMATION BASED ON THE AVERAGE CONE RATIO IN THE WAVELET DOMAIN

Ljiljana Platisa (University Ghent / IBBT, Belgium)

QOE IN COLLABORATIVE WIRELESS LOCAL AREA NETWORKS

Mónica A. Lora (RWTH Aachen University, Germany)

A FEATURE-BASED APPROACH FOR REDUCED-REFERENCE VISUAL QUALITY ASSESSMENT

Adriaan Barri (Vrije Universiteit Brussel / IBBT, Belgium)

HOW TO MEASURE QOE OBJECTIVELY AND NON-INTRUSIVELY OF MULTIMEDIA APPLICATIONS OVER IP/WIRELESS NETWORKS?

Asiya Khan (University of Plymouth, UK)

SUBJECTIVE AND OBJECTIVE QUALITY EVALUATION OF COMPRESSED MEDICAL VIDEO SEQUENCES

Asli Kumcu (University Ghent / IBBT, Belgium)

QUALITY EVALUATION OF LONG DURATION AV CONTENT - EXISTING METHODS AND NEW IDEAS

Adam Borowiak(NTNU, Norway)

Friday, September 9

9:00 – Keynote Talk on 'Audio Quality: Listening Tests, Objective Measures and What Else?'

Chair: Alexander Raake (Deutsche Telekom Laboratories / Berlin University of Technology, Germany)

Room: Auditorium



Lecturer: Karlheinz Brandenburg (Ilmenau University of Technology / Fraunhofer Institute for Digital Media Technology, Germany)

Abstract: Under the headline 'high fidelity' or, today 'HD Audio' companies manage to sell everything from real good products to wishful thinking. The presentation starts with an overview of the mechanism of hearing and why we feel better spending 2000 Euros for a cable. It goes on to the science of listening tests with its many pitfalls. ITU and ISO/IEC have worked to define standardized test methods which help creating tests with valid and reliable results. Still, to become statistically valid, often a lot of information from the test remains unused. Objective test methods like the standards PESQ (for speech) and PEAQ (for high quality audio) can give limited help to avoid costly listening tests. Finally, the talk will introduce some of the open questions we are faced with more and more in measuring subjective audio quality.

9:00 – Coffee Break

10:30 – Lecture Session on 'Image Structure & Visual Attention'

Chair: Lina Karam (Arizona State University, USA)

Room: Auditorium

10:30 SSIM AS GLOBAL QUALITY METRIC: A DIFFERENTIAL GEOMETRY VIEW

Thomas Richter (University of Stuttgart, Germany)

10:55 AUTOMATIC PREDICTION OF SALIENCY ON JPEG DISTORTED IMAGES

Anish Mittal (UT AUSTIN, USA); Anush Moorthy (The University of Texas at Austin, USA); Alan C Bovik (University of Texas at Austin, USA); Lawrence Cormack (The University of Texas at Austin, USA)

11:20 IMAGE QUALITY AND VISUAL ATTENTION INTERACTIONS: TOWARDS A MORE RELIABLE ANALYSIS IN THE SALIENCY SPACE

Judith Redi (Delft University of Technology, The Netherlands); Ingrid Heynderickx (Philips Research Laboratories, The Netherlands)

11:45 EXAMINING VISUAL ATTENTION: A METHOD FOR REVEALING USERS' INTEREST FOR IMAGES ON SCREEN

Seyed Navid Haji Mirza (Queen Mary, University of London, United Kingdom); Ebroul Izquierdo (Queen Mary, University of London, United Kingdom)

12:10 - Lunch



Special Session on 'Qualinet Industry Forum'

Chairs: Kjell Brunnström (Acreo AB - NetLab: IPTV, Video and Display Quality, Sweden) and Andrea de Polo (Alinari, Italy)

Room: Auditorium

13:40 - Keynote Talk on 'Why medical display quality is a crucial factor in visualization in Healthcare!'



Lecturer: Cédric Marchessoux (Barco, Belgium)

Abstract: Medical displays require a level of quality that is higher than for consumer displays. This presentation presents important characteristics for offering the best solution for physicians. Several important display aspects will be analyzed such as display calibration, viewing conditions (ambient light, viewing distance), brightness, bit depth, luminance stabilization and uniformity & spatial noise. To reach the prerequisite of medical imaging devices, current technologies must be adapted and its pitfalls compensated. For each of those topics a detailed explanation will be given to underline the reasons why these high specifications are necessary. To facilitate the understanding of the presentation by the audience not familiar with the topic, an introduction will be given for explaining the basic and key concept of medical displays and also the nowadays situation in hospitals. Actually, softcopy displays are only one but important part of the digital imaging chain.

14:40 - Lecture on 'Where QoE is needed most: Identifying Hot Topics for Qualinet'

Sebastian Möller (TU Berlin, Deutsche Telekom Laboratories, Germany) & Christian Keimel (Technische Universität München, Germany)

15:10 - Coffee Break

Third International Workshop on Quality of Multimedia Experience (QoMEX 2011)

15:40 - Panel Discussion: 'QoE in Applications, Standardization and Certification'

Panel Chair: Fernando Pereira (Instituto Superior Técnico - Instituto de Telecomunicações, Portugal)

Panel Members: Arthur Webster(National Telecommunications and Information Administration's Institute for Telecommunication Sciences NTIA/ITS, US), Ingrid Heynderickx (Philips Research Laboratories ,The Netherlands), Karlheinz Brandenburg (Institute for Media Technology at Ilmenau University of Technology, Fraunhofer Institute for Digital Media Technology IDMT, German), Touradj Ebrahimi (PEFL, Switzerland))

17:10 - QoMEX 2011 Concluding Remarks

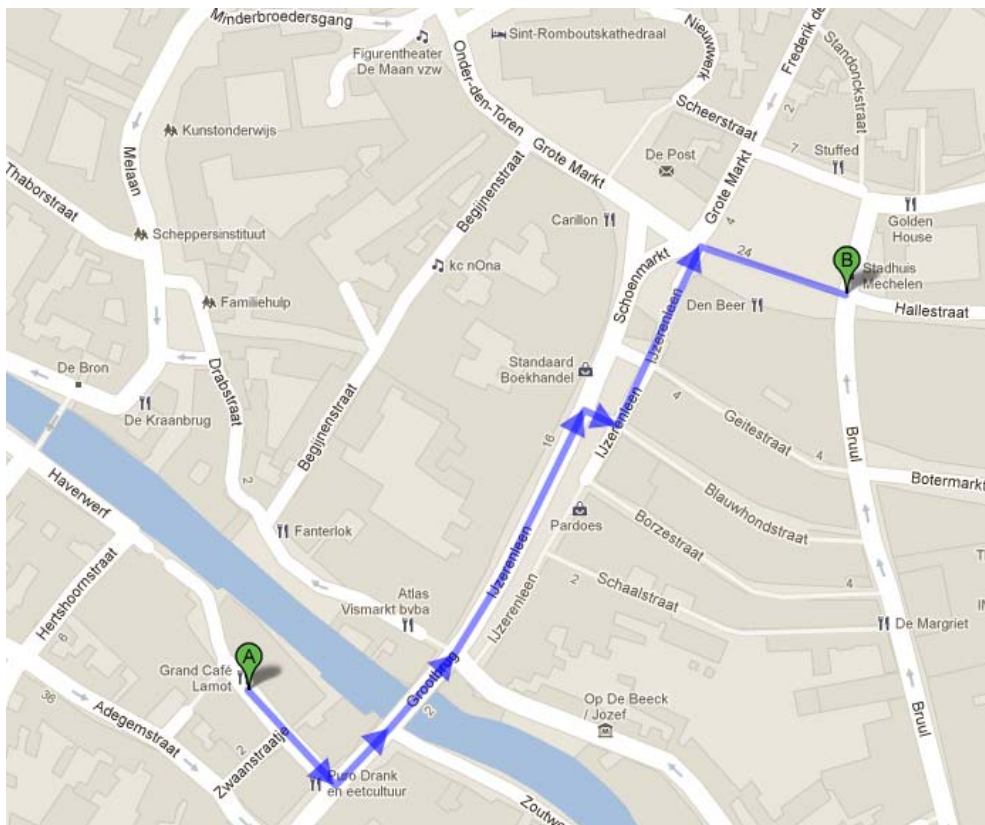
Social Program

Welcome Reception at Town Hall

Wednesday, September 7th at 18h30

All QoMEX attendees are welcomed at the Welcome Reception. We will meet at 18h15 at the conference center and walk together to the Town Hall. At the reception you will be treated on some history and not to forget Belgian cuisine and local beer.

Mechelen Town Hall is actually two buildings: the cloth hall with its unfinished belfry (recognized by UNESCO) and the Palace of the Great Council. The Town Hall on the Grote Markt has a complex history. Building work on the belfry suddenly came to a standstill in the fourteenth-century. This had to do with the decline of the cloth trade which meant there were no longer sufficient funds to complete the build. For two hundred years the belfry was no more than a shell, until it was eventually provided with a temporary roof in the sixteenth century. In fact the roof was not that temporary because it is still there! UNESCO has declared the belfry a world heritage site.



Conference Banquet at Planckendael Zoo

Thursday, September 8th at 17h00

The conference banquet will be organized at Planckendael Zoo. We will leave at the conference center at 17h00 sharp and walk to the Leuven Channel where the visit will start off with a boat trip. Before the banquet you will have the opportunity to visit the Zoo via a guided tour where after the Banquet will start. The return is organized by bus coach.

