

# CIE TC 8-16

## Face-to-face meeting in Lillehammer, Norway

11<sup>th</sup> September 2017

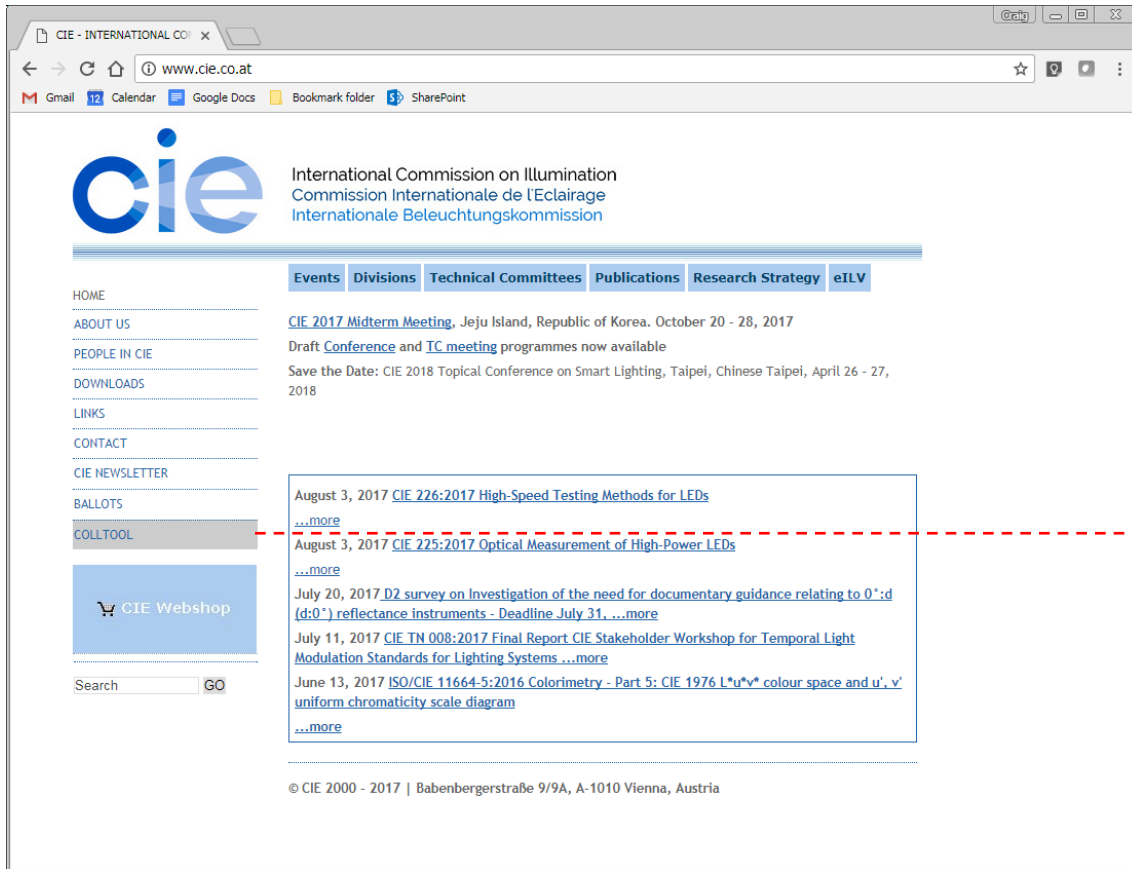
Chairs: Craig Revie, Yasuki Yamauchi

**Meeting will be recorded**

# Agenda

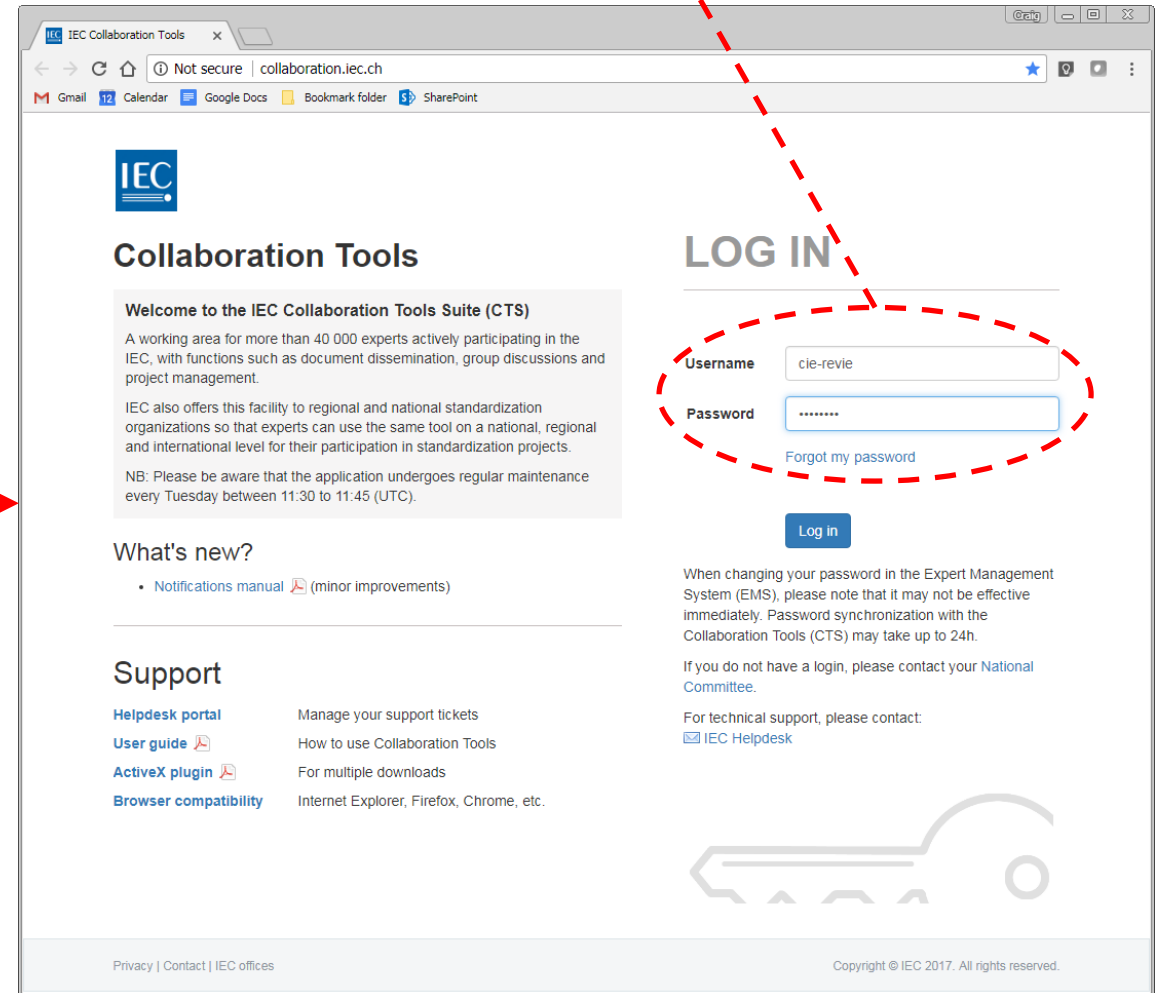
- Overview of Consistent Colour Appearance reproduction objective Craig Revie
- Research project:
  - Fogra (Philipp Tröster)
  - Yamagata University (Yasuki Yamauchi)
  - NTNU, Gjøvik (Gregory High)
  - RIT research and review of print samples (Elena Fedorovskaya)
- Feedback from experts and discussion of ideas
- CIE TC8-16 project plan (Yasuki Yamauchi)
- Assessment method for Consistent Colour Appearance rendering algorithms Craig Revie
- Summary and next steps

# CIE COLLTOOL area for CIE TC8-16



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Documents

| Type                     | Title               | Created on | Created by  | Modified on | Modified by | # Att | Download |
|--------------------------|---------------------|------------|-------------|-------------|-------------|-------|----------|
| <input type="checkbox"/> | Reference images    | 2017-04-28 | REVIE Craig | 2017-04-29  | REVIE Craig | 0     |          |
| <input type="checkbox"/> | Reference documents | 2017-04-11 | REVIE Craig | 2017-04-12  | REVIE Craig | 0     |          |

Showing items 1 - 2 of 2

First Previous Next Last

Hide all responses

Collaboration Tools shortcuts: Welcome/Home

Other IEC links: IEC website, TC/SC Dashboard, IEC National Committees, TC/SC resource area, Working documents, Project files, Work Programme

Other IEC tools: Meeting Registration System (MRS), Expert Management System (EMS)

Contact us: helpdesk@iec.ch

Reference images

New Page Folder Download More Actions

| Type                     | Title                       | Created on |
|--------------------------|-----------------------------|------------|
| <input type="checkbox"/> | ISO 12640-2,3,4 SCID images | 2017-07-10 |
| <input type="checkbox"/> | Roman16 ECI RGB test images | 2017-04-28 |

Show: 10 | 20 | 50 | 100 | All items

Reference documents

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| Type                     | Title   | Created on |
|--------------------------|---|------------|
| <input type="checkbox"/> | A Novel Method to Evaluate the Closeness of Two Colors  | 2017-09-08 |
| <input type="checkbox"/> | Exploring the Effect of Gray Balance and Tone Reproduction on Consistent Color Appearance (TAGA 2017) | 2017-08-15 |
| <input type="checkbox"/> | Predicting Color Image Match (TAGA 2017)  | 2017-08-15 |
| <input type="checkbox"/> | Perceptually uniform color space for image signals including high dynamic range and wide gamut        | 2017-06-23 |
| <input type="checkbox"/> | Comprehensive color solutions: CAM16, CAT16, and CAM16-UCS  | 2017-06-23 |
| <input type="checkbox"/> | DR8-13 Report: Consistent colour appearance   | 2017-04-13 |
| <input type="checkbox"/> | CIE 159:2004, A Colour Appearance Model for Colour Management Systems: CIECAM02                       | 2017-04-13 |
| <input type="checkbox"/> | CIE 156:2004, Guidelines for the evaluation of gamut mapping algorithms                               | 2017-04-13 |

Show: 10 | 20 | 50 | 100 | All items

Meeting presentations, recordings and notes

Meeting recordings and reference image data files are hosted on the ICC web site (ICC login required)

# Other CCA resources

The screenshot shows the ICC website page for 'Consistent colour appearance'. The page includes a navigation menu with 'ABOUT ICC', 'RESOURCES', 'INFORMATION', 'MEMBERS', 'GETTING STARTED', and 'V4'. The main content area is titled 'Consistent colour appearance' and contains several sections: 'ICC: EVENTS:' with a list of events from 2015 to 2017; 'Resources' with a link to 'test images'; 'Meetings' with an 'Informal Workshop on Consistent Colour Appearance at RIT'; and 'Agenda' with a detailed schedule. A search bar and 'ICC: LIVE TOPICS:' section are also visible. A red dashed arrow points from the 'test images' link in the Resources section to the 'Proposed test images' section on the right.

## Consistent Colour Appearance - test images

### Proposed test images

The following images have been proposed for the testing of **Consistent Colour Appearance**. Our objective is to ensure that results from testing can be shared easily. These images are not freely available but may be obtained from ISO as part of ISO12640 (Part 2: sRGB SCID, Part 3 CIELAB SCID and Part 4 AdobeRGB SCID).

It is suggested that the primary set of images be used for all tests. Where algorithms have been identified that perform well for the primary set, the secondary set be used to test these further.

Suggestions for additions or modifications to these image sets should be made to the **ICC Technical Secretary**.



### Reference printing gamuts

| Reference name        | Characterisation data  | ICC Profile  |
|-----------------------|--|--|
| CGATS21-2-CRPC1       | NPES<br><a href="#">CGATS21-2-CRPC1.txt</a>                                      | ICC profile registry<br><a href="#">CGATS21_CRPC1.xalter</a>                             |
| FOGRA47               | ICC characterisation data registry<br><a href="#">FOGRA47L.txt</a>               | ICC profile registry<br><a href="#">Uncoated_Fogra47L_VIGC_300.xalter</a>                |
| PSRgravureMF          | ECI<br><a href="#">eci_gravure_psr_v2_2009.zip</a><br>(PSRgravureMF_ECI2002.txt) | ECI<br><a href="#">eci_gravure_psr_v2_2009.zip</a><br>(PSRgravureMF.icc)                 |
| ECI PSR SC STD V2     | ECI<br><a href="#">eci_gravure_psr_v2_2009.zip</a><br>(ECI_PSR_SC_STD_V2.txt)    | ECI<br><a href="#">eci_gravure_psr_v2_2009.zip</a><br>(PSR_SC_STD_V2_PT.icc)             |
| SC_paper_eci          | Only available from targ tag in ICC Profile                                      | ECI<br><a href="#">eci_offset_2009.zip</a><br>(SC_paper_eci.icc)                         |
| Japan Web Coated (Ad) | Not available (may be derived from A2B1 and MediaWhitePoint tags)                | Adobe<br><a href="#">detail.jsp?ftpID=4075</a><br>(JapanWebCoated.icc)                   |
| FOGRA39               | ICC characterisation data registry<br><a href="#">FOGRA39.txt</a>                | ICC profile registry<br><a href="#">Coated_Fogra39L_VIGC_300.xalter</a>                  |
| FOGRA53               | <a href="#">FOGRA53</a> characterization data                                    | <a href="#">eciCMYK</a> is an ICC Profile created from the FOGRA53 Characterisation Data |

Note release of FOGRA53 characterisation data set and eciCMYK ICC Profile

# Objective: printed images

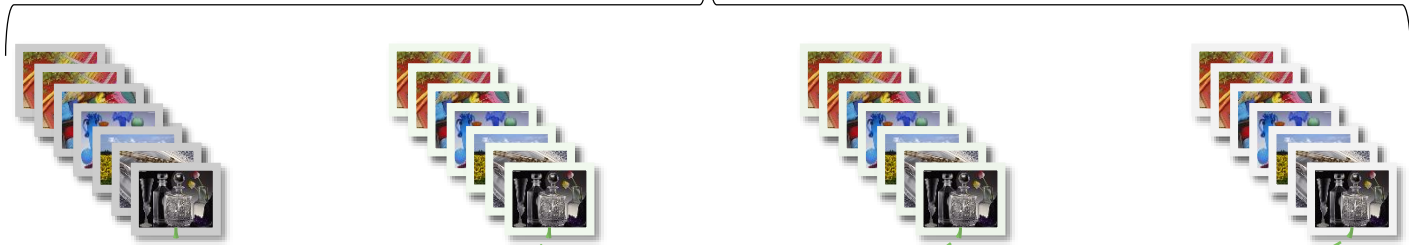


Production Printers  
Includes media, inks and printer configuration


Reference Printer  
Includes media, inks and printer configuration



Reference Prints




Print Visual Assessment

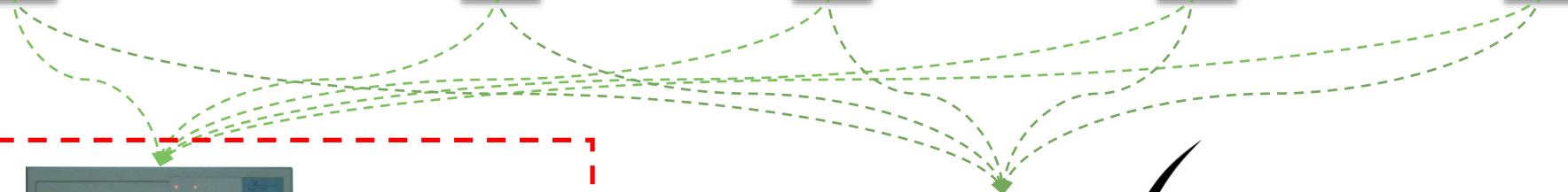


Print Viewing Environment

Print measurement and assessment



Consistent Colour Appearance Metric



# Flexible print (RGB) workflow



Print contract is agreed based on a **reference display image** or **prototype print** from a standard digital printing system



RGB

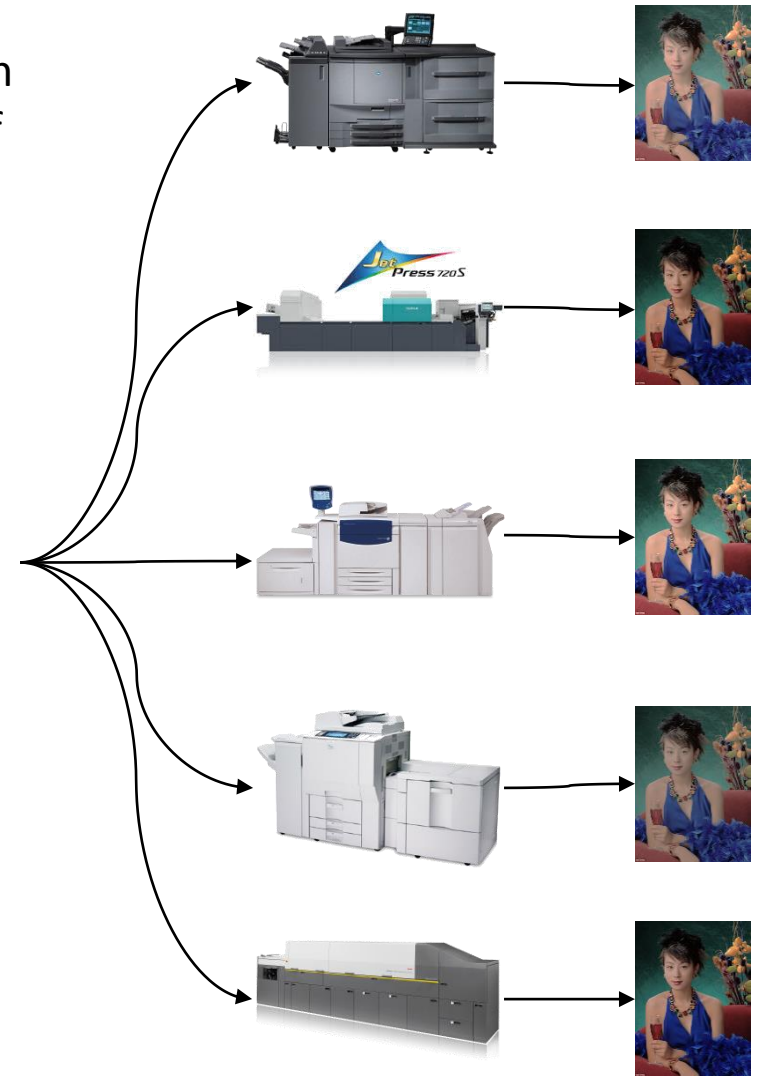


Printing should use all of the available printing gamut but must retain colour appearance of agreed reference



RGB

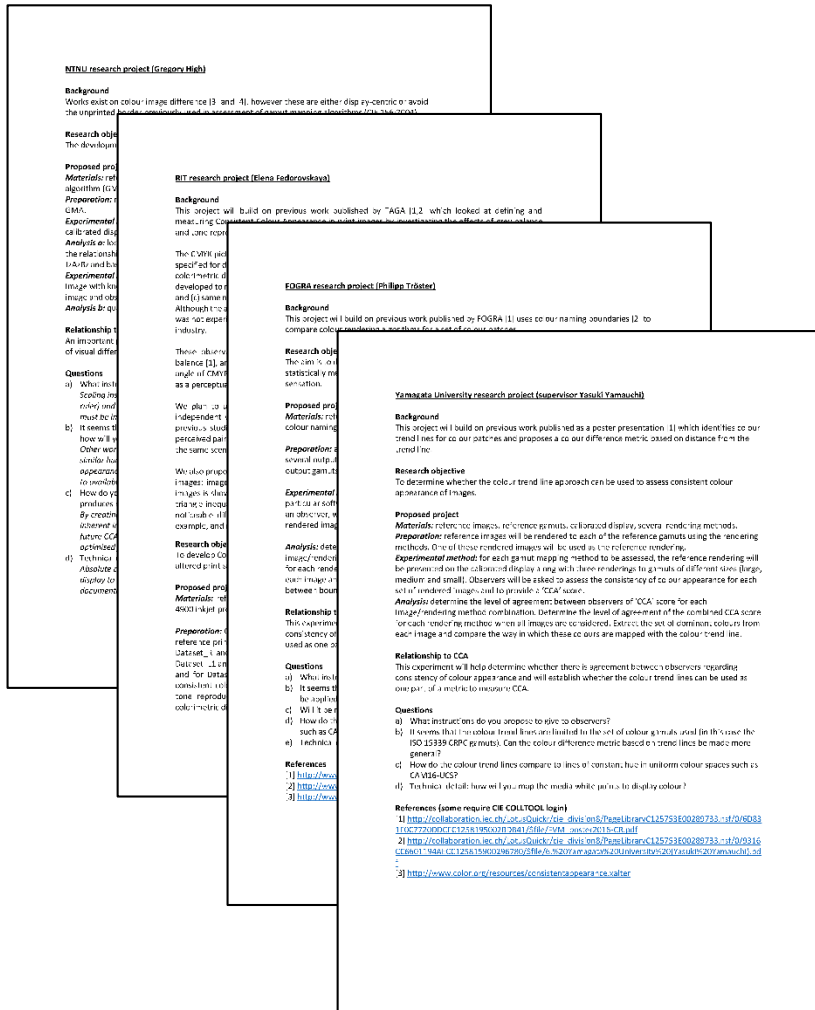
Colour conversion



Consistent colour appearance?

Initial target for CIE TC8-16

# Research proposals summaries



The intent is to provide a top-level summary of each research project in a way that can be easily understood by other members of the TC so that they can provide useful input to these research projects.

An initial document has been circulated in preparation for this meeting. As all of these research projects are currently at an early stage we expect that many details of each project will change.

The owners of these documents are encouraged to keep them up-to-date to reflect the latest project plan.

To be posted on COLLTOOL area



# Fogra research project (Philipp Tröster)

Yamagata University  
research project  
(Yasuki Yamauchi)

NTNU, Gjøvik research project  
(Gregory High)

RIT research project  
(Elena Fedorovskaya)

Feedback from experts and  
discussion of ideas

# CIE TC8-16 project plan (Yasuki Yamauchi)

Assessment method for Consistent Colour  
Appearance rendering algorithms  
(Craig Revie)

# Summary and next steps

- Next teleconference week of 6<sup>th</sup> November?