

2023 CORM Presentation

Nov. 16, 2023 Lorne Whitehead, University of British Columbia

Possible Improvements Related to the CIE Cone Fundamentals

TC 1-98: A roadmap toward basing CIE colorimetry on cone fundamentals

- Year Established:** 2020
- Terms of Reference:** To create a roadmap for the development of a new, complete, self-consistent system of CIE colorimetry measures based directly on cone fundamentals, with explicit consideration of the impacts of normal variations of the cone fundamentals due to age, field of view, and individual diversity.
- Chair:** L Whitehead (CA)

TC 1-98: A roadmap toward basing CIE colorimetry on cone fundamentals

History:

- WD 8 approved by TC 1-98, submitted to CB August 29, 2022
- CB responded with CD 1 on Feb 27, 2023
- CD 2 approved by TC 1-98, submitted to CB April 25, 2023
- CB responded with CD 3 on July 3, 2023; only minor corrections requested
- CD 4, with those corrections, submitted to CB on August 9, 2023
- While the TC 1-98 approval process is finishing, we can begin *informally discussing* five new initiatives that have been recommended by TC 1-98

TC 1-98 is recommending that the CIE start five new initiatives:

1. To make recommendations for the creation of LMS-based measures similar to some within the XYZ system.
2. To update the CIE publications CIE 170-1:2006 and CIE 170-2:2015 with values for the cone fundamentals provided from 360 nm to 830 nm
3. To create an LMS-based fairly uniform colour space similar to CIELAB
4. To recommend a global study of cone fundamental diversity
5. To estimate the colorimetric effects of cone fundamental diversity

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**Stay tuned –new TC’s may soon
be created for these purposes,
requiring numerous expert participants:**

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