

AGH



Study of Subjective Data Integrity

for Image Quality Data Sets
with Consumer Camera Content

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VQEG Meeting, 9 - 13 March 2020, Seattle



To encourage no-reference (a.k.a. blind) image quality assessment algorithms development for consumer content

- Provide subjectively evaluated consumer content
- Check if the classical study design works for consumer content
- Provide guidelines wrt. data integrity verification



Two new data sets:

1. Consumer-Content Resolution and Image Quality Data Set Two (**CCRIQ2**)
2. Video and Image Models for Consumer Content Evaluation Data Set One (**VIME1**)

Subjective scores available as a supplementary material of [our paper](#) (and soon on CDVL).

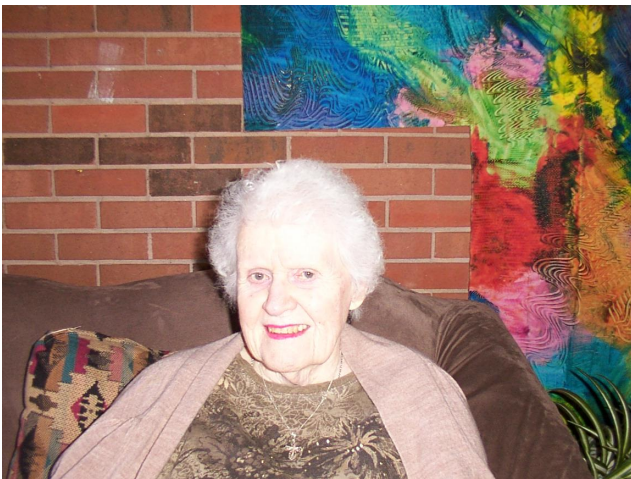


CCRIQ2

- 88 photos
- of 4 scenes
- all captured by 23 cameras
- 5-level ACR scale
- 24 participants*

VIME1

- 101 photos
- of 7 scenes
- all captured by 11 cameras
- 5-level ACR scale
- 24 participants*



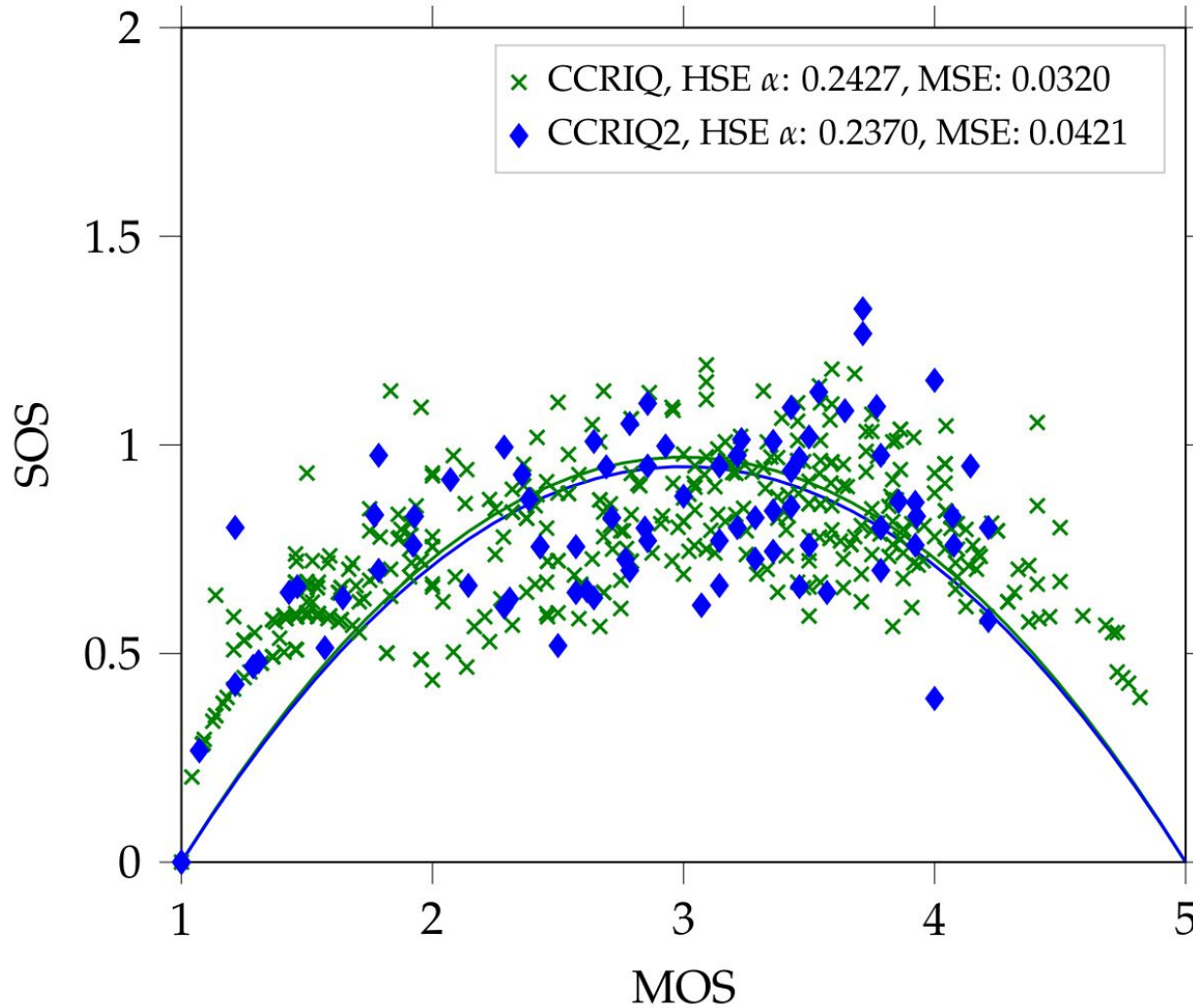


How to check whether CCRIQ2 is similar to its legacy counterpart (i.e., CCRIQ)?

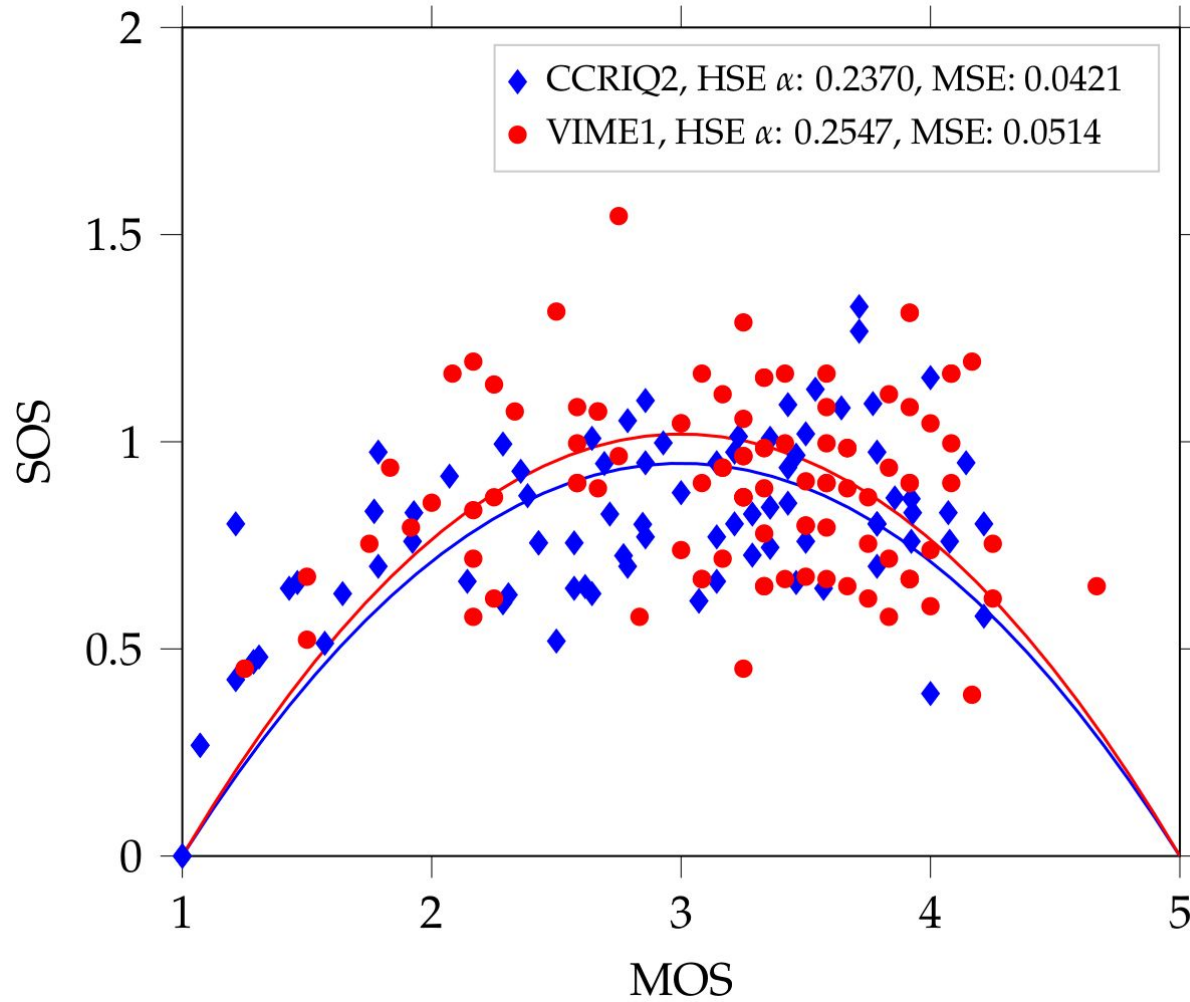
How to check the integrity of our results?

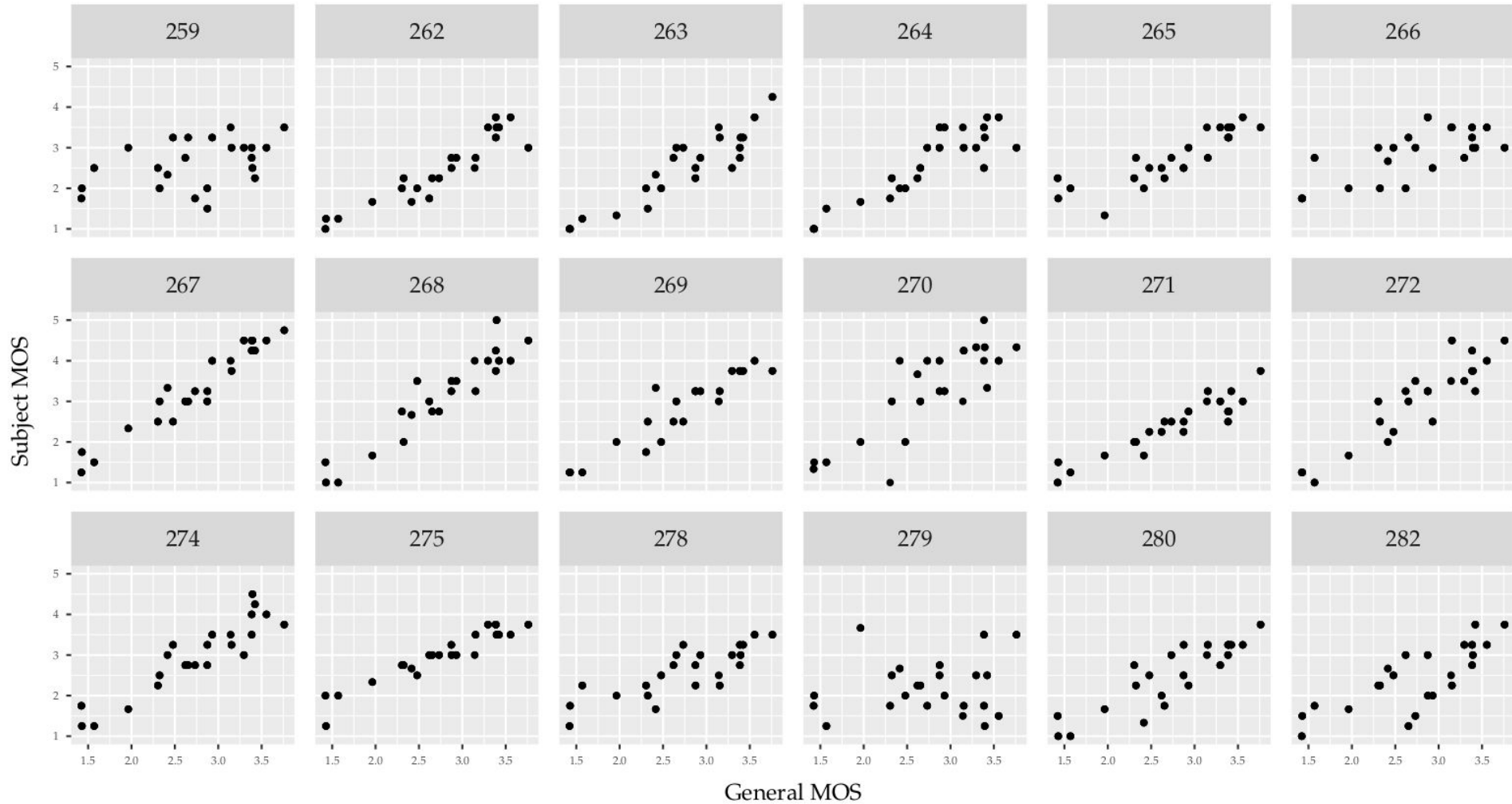
HSE α (a.k.a. SOS α) seems eligible

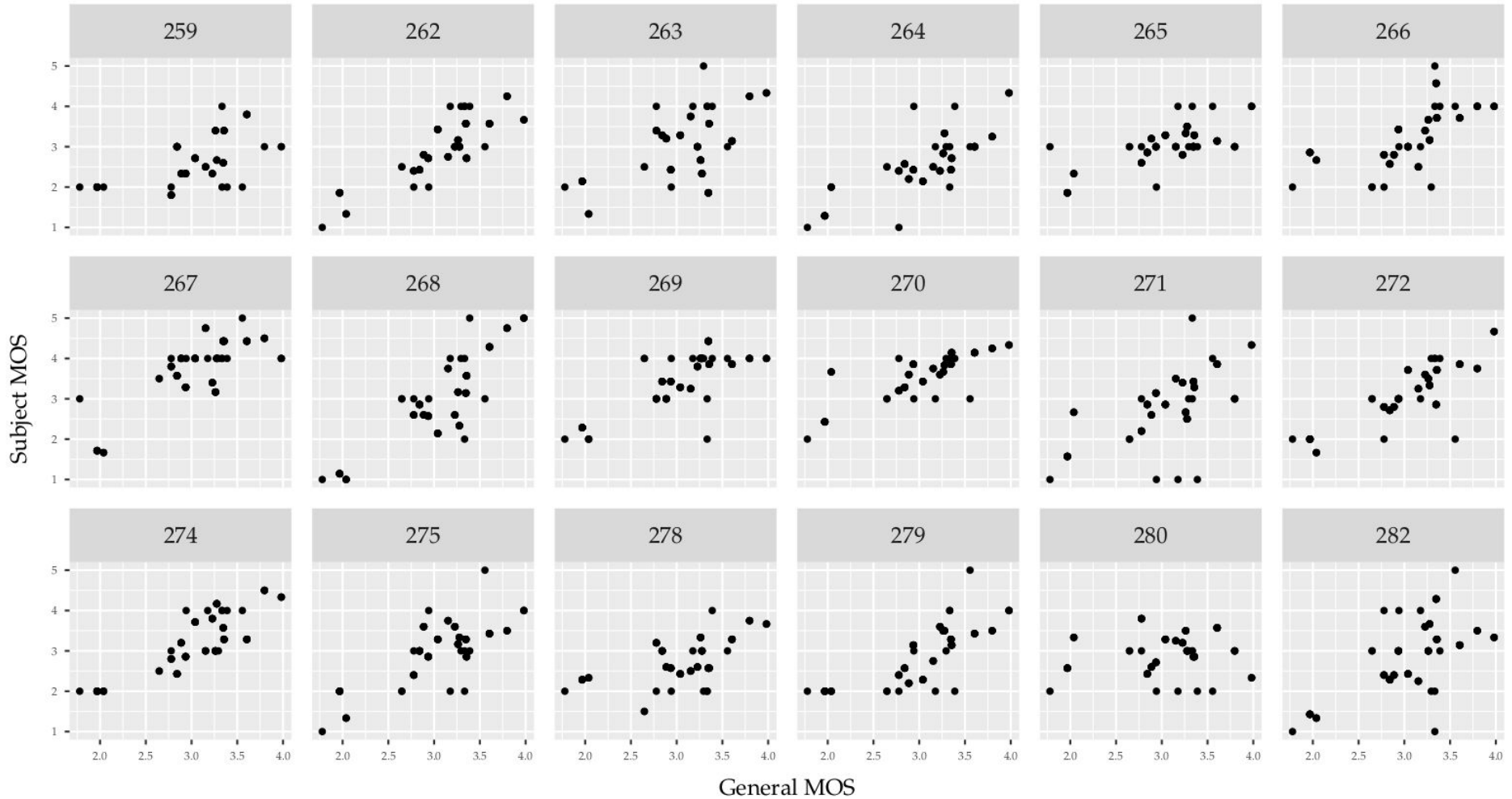
Results



Results







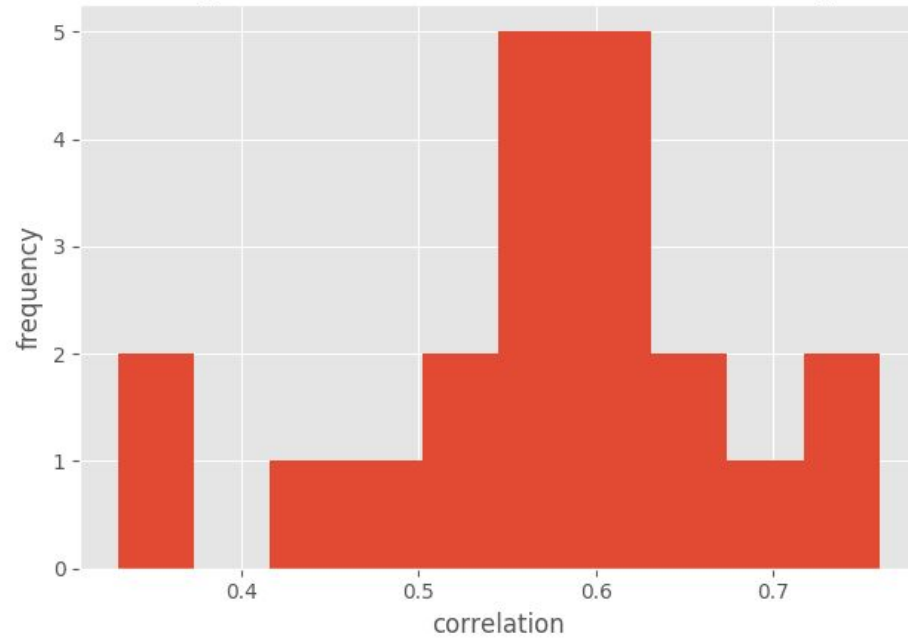


Our idea on what made the VIME1 results inconsistent

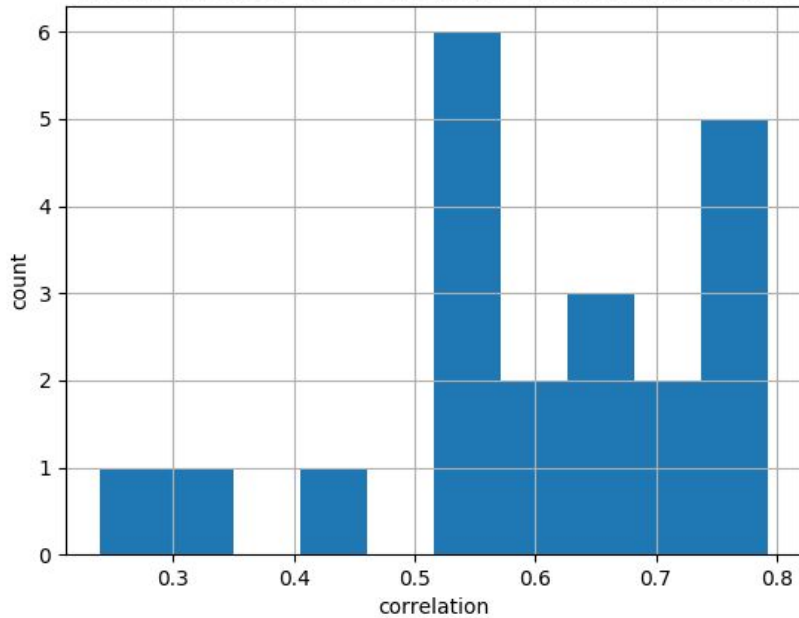
mixing of vertical and horizontal shots



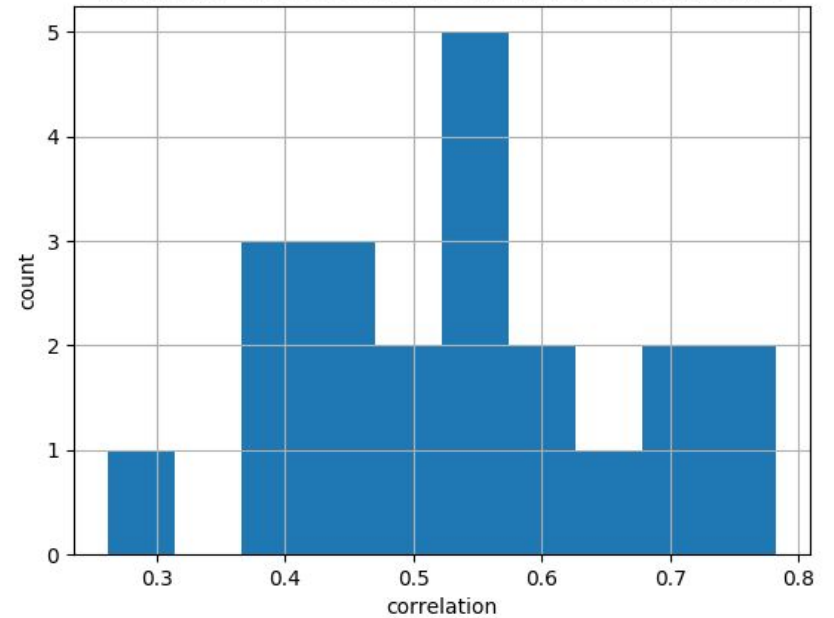
Histogram of one-vs-all correlations for all images



Histogram of one-vs-all correlations for horizontal images



Histogram of one-vs-all correlations for vertical images



Conclusions



- 1. Do not rely on any single score integrity measure**
 - a. We recommend using the post-experimental screening of subjects (from ITU-T P.913) and our visual, scatter plot-based method
- 2. Be careful when applying the classical study design to consumer content**
- 3. Think twice before mixing vertical and horizontal shots**



Thank You



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- As a part of a teaching course
- Took 35 minutes (on average) to complete
- Controlled env. (see Rec. ITU-T P.913)
- 24 participants
- Everyone watched the content at the same time
- 1 440 x 900 displays
- around 23 - 24 yo
- 11 training images (repeated in the main session)

