JEG-Hybrid Joint Effort Group

### Status Update and New Website

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VQEG May 2022 Meeting, Rennes, France

# **Original Mission and Current Focus**

- Originally develop a no reference Hybrid Perceptual/Bit-Stream model
  - With a small set of subjective experiments: limited training possibilities, limited validation
    - Using, e.g., a large scale DB with 60,000+ PVS (no losses) and 500,000+ PVS with distortion due to packet losses, many full-reference objective quality measures, etc.
- Over the last few years, the activities gradually evolved over time to include several areas of Video Quality Assessment (VQA)
  - Tackling new research questions with hopefully long term impact on the video quality research community
    - Results have been presented in last VQEG meetings (in the JEG-Hybrid sessions)
  - Currently, not directly seeking the development of new metrics or tools readily available for VQA

## **Current Main Research Activities**

#### Modeling single observers

- to mimic the behavior of single observers in subjective experiments, to investigate/understand their characteristics, and potentially to run "virtual" subjective experiments
- Developing methods to use a low amount of subjectively annotated data for VQMs training
  - Coupled with (less reliably) automatically annotated data, to improve existing VQMs

#### Modeling VQM disagreement

 to achieve better design of subjective experiments, to give hints about which video sequences are most likely to make VQM predictions fail, to find the most interesting SRCs and PVSs to work with

#### How to promote reproducible research in VQA

 By developing methods, approaches, frameworks, and tools; also working on a "stamp" for scientific publications to report on training/benchmarking of DNN-based VQMs

## New Website

- We completely redesigned the website to better reflect the activities going on in the project
  - Hosted on GitHub pages for easier management and update
    - Similarly to Tools and Subjective Labs Setup website
  - Reports on current and recent activities, publications, and related resources
    - Old website statically mirrored inside, to preserve history
  - Feedbacks welcome!
- <u>https://vqegjeg.github.io/jeg-hybrid</u>

JEG-Hybrid	Mission	People	Activities	Publications	Resources	Meetings	About
Mission							
The group is an activity within the Video Quality Exp name of JEG-Hybrid. The original aim was to develo Video Quality Assessment (VQA).							
In particular, new research questions are being tack modeling single observers, modeling VQMs disagre immediate commercial interest, such as trying to de	ement, promoting reproducible	research	in VQA, etc.	,	,	01	,
Current activities are listed in more details in the de	dicated page. Join us here to k	now more					
More information about the history of JEG and JEG	-Hybrid can also be found on th	e old JEG	-Hybrid web	site.			
All other resources are available via the navigation r	menu.						
JEG-Hybrid							
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# Where Can I Get More Information?

- New website <a href="https://vqegjeg.github.io/jeg-hybrid/">https://vqegjeg.github.io/jeg-hybrid/</a>
  - Including a new up-to-date publication with immediate download link for each one
- Biweekly online meetings (next: May 16, 2022, 4pm CEST)
- How may I get involved?
  - Subscribe to the VQEG-JEG mailing list: jeg@vqeg.org
  - <u>http://www.its.bldrdoc.gov/vqeg/email-reflectors.aspx</u>
- Join our biweekly conference call