



# Computer Generated Imagery

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# General Information

- The main focus is devoted to analyzing and evaluating of computer-generated content
- Webpage:  
<https://www.its.bldrdoc.gov/vqeg/projects/computer-generated-imagery-cgi.aspx>
- Looking for more collaborative work ideas
- Active Partners
  - Kingston University, London, United Kingdom
  - Technische Universität, Berlin, Germany
  - Dolby Laboratories, US
  - Simula, Norway
  - TU Ilmenau, Germany
  - Ericsson, Sweden
  - Tencent, US

# Current Working Topics

- Cloud Gaming Quality Assessment
  - ITU-T P.BBQCG: Bitstream-Based Quality Assessment of Cloud Gaming Services

# Quality of Experience Cloud Gaming

- Completion of 3 work items in ITU-T SG-12
  - ITU-T Rec. G.1032 (10/2017) – G.QoE-gaming:
    - Influence factors on gaming quality of experience
  - ITU-T Rec. P.809 (05/2018) – P.GAME:
    - Subjective evaluation methods for gaming quality
  - ITU-T Rec. G.1072 (01/2020) – G.OMG:
    - Opinion model for gaming applications



# QoE of Gaming Online Services



## □ Creation of **3 ongoing work items** in ITU-T SG-12

### □ ITU-T work item **P.BBQCG**:

- Parametric bitstream-based Quality Assessment of Cloud Gaming Services
- <https://www.itu.int/md/T17-SG12-C-0489/en>

### □ ITU-T work item **G.OMMOG**:

- Opinion Model for Mobile Online Gaming applications
- <https://www.itu.int/md/T17-SG12-C-0484/en>

### □ ITU-T work item **P.CROWDG**:

- Subjective Evaluation of Gaming Quality with a Crowdsourcing Approach
- <https://www.itu.int/md/T17-SG12-C-0437>



# Quality of Experience Cloud Gaming

- Administrative
  - Identifying other topics and interests in Computer-Generated Imagery rather than gaming content
    - Input required from CGI members in particular, VQEG in general
- Research
  - Continue work on existing work items - interested parties are welcome to join
  - New gaming dataset of HDR, UHD resolution – Available online.
    - Further work in this direction in ABR ladder, subjective tests (interested?)
  - Development of a tool for NR metrics and models for assessing gaming QoE (including HDR content)
  - ML/DL based Gaming Content Quality Enhancement



# Contact

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