

# Visual Quality Assessment of 3D Models: on the Influence of Light-Material Interaction

by Kenneth Vanhoey, Basile Sauvage, Pierre Kraemer, Guillaume Lavoué

## Statistical significance: detailed p-values for Fig. 8

Pairwise t-test (Bonferroni-corrected) between all metrics (using bootstrapped Spearman correlation) for both datasets. Methods are ranked according to their correlation performance in descending order. For each method (on top of each column) we list below the remaining ones with corresponding p-values. We highlight the latter in gray if the improvement is statistically significant.

**Synthetic data**

|         | CID    | SSIM   | HDRVDP2 | Ours   | MSDM2 |
|---------|--------|--------|---------|--------|-------|
| SSIM    | 1.000  | -      | -       | -      | -     |
| HDRVDP2 | 0.161  | 1.000  | -       | -      | -     |
| Ours    | <2e-16 | <2e-16 | <2e-16  | -      | -     |
| MSDM2   | <2e-16 | <2e-16 | <2e-16  | <2e-16 | -     |
| MSE     | <2e-16 | <2e-16 | <2e-16  | <2e-16 | 0.002 |

**Acquired data**

|         | CID    | Ours   | HDRVDP2 | SSIM   | MSE    |
|---------|--------|--------|---------|--------|--------|
| Ours    | 1.000  | -      | -       | -      | -      |
| HDRVDP2 | 1.000  | 1.000  | -       | -      | -      |
| SSIM    | 4e-04  | 9e-04  | 9e-04   | -      | -      |
| MSE     | <2e-16 | <2e-16 | <2e-16  | <2e-16 | -      |
| MSDM2   | <2e-16 | <2e-16 | <2e-16  | <2e-16 | <2e-16 |