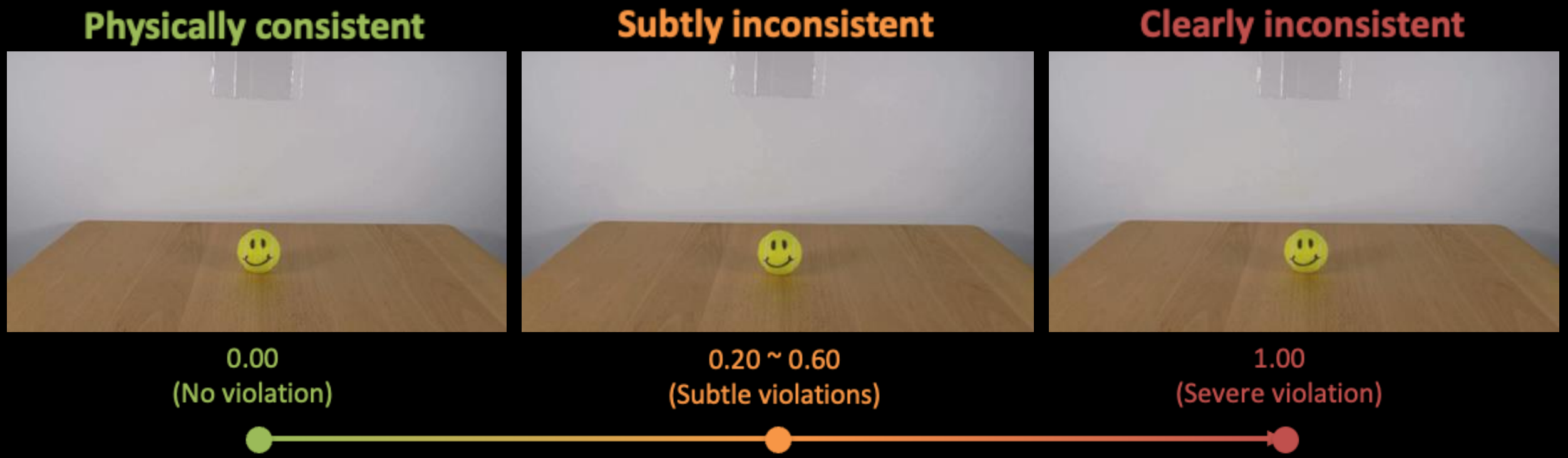
PhyProbe

Rethinking Physical Consistency Evaluation in Generated Videos



PhyProbe

A continuous metric to quantify how far a video deviates from physical reality
(a.k.a. Severity of Physics Violations)



PhyProbe

PhyProbe works as a single video physics scoring metric, but also work as effective comparison on cases where:

Shared Image Correspondence



Shared Text Correspondence



No shared Correspondence



Shared Image Correspondence

Physical consistency under shared image correspondence



PhyProbe
0.07
low
violation



PhyProbe
0.72
high
violation



PhyProbe
0.65
moderate
violation



PhyProbe
0.49
moderate
violation

Shared Text Correspondence

Physical consistency under shared text correspondence



PhyProbe
0.63
moderate
violation



PhyProbe
1.00
high
violation



PhyProbe
0.03
low
violation



PhyProbe
0.58
moderate
violation

No Shared Correspondence

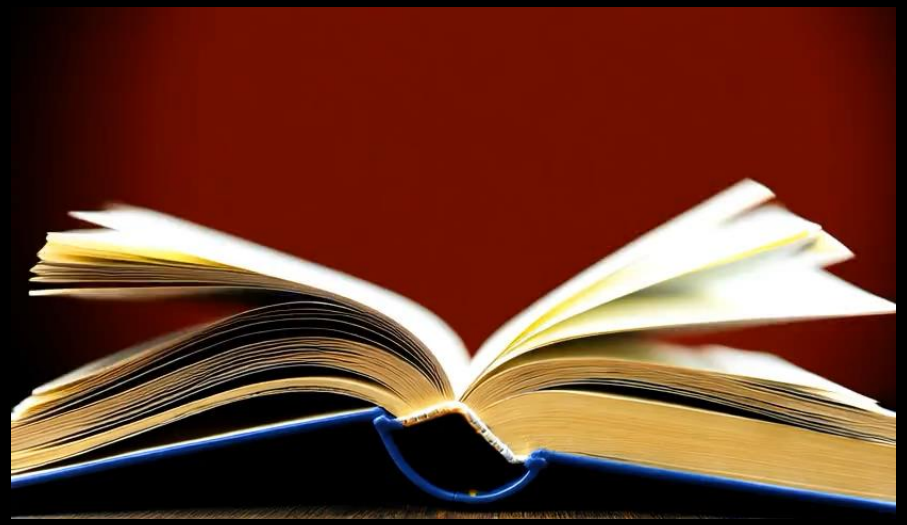
Physical consistency in unconstrained videos



PhyProbe
0.95
high
violation



PhyProbe
0.79
high
violation



PhyProbe
0.69
moderate
violation



PhyProbe
0.12
low
violation