MAX PLANCK INSTITUTE FOR INTELLIGENT SYSTEMS

Motivation

State-of-the-art GANs achieve impressive photorealistic image synthesis

At test time, we can sample new latent codes and get new outputs in the training domain:



For example, when we train on images of cars, we can generate new images of cars:





But how can we manipulate the scene?







The Challenge

Most state-of-the-art GANs operate in the two-dimensional image domain

Current 3D-aware models hand-tune camera parameters and results **degenerate** if they are not carefully tuned:



GRAF (without tuned camera prameters)



Ours (no tuning required)



https://bit.ly/giraffe-project

CAMPAR Decomposed Generative Neural Radiance Fields

Michael Niemeyer Andreas Geiger Max Planck Institute for Intelligent Systems, Tübingen and University of Tübingen

Our Method

 $x \in X$







EBERHARD KARLS UNIVERSITÄT TÜBINGEN

michael.niemeyer@tue.mpg.de