

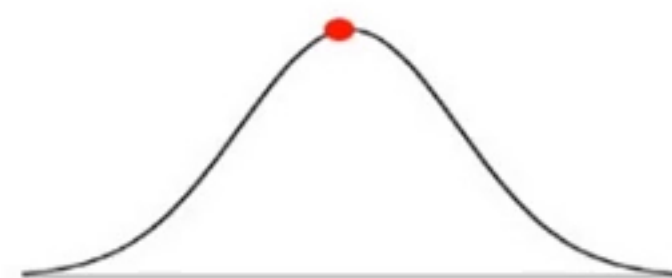


Multi-view 3D Models from Single Images with a Convolutional Network

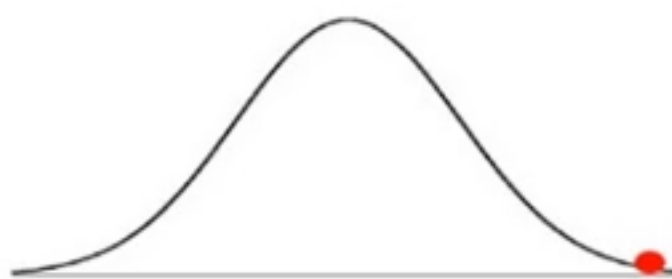
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Thomas Brox

University of Freiburg
ECCV 2016

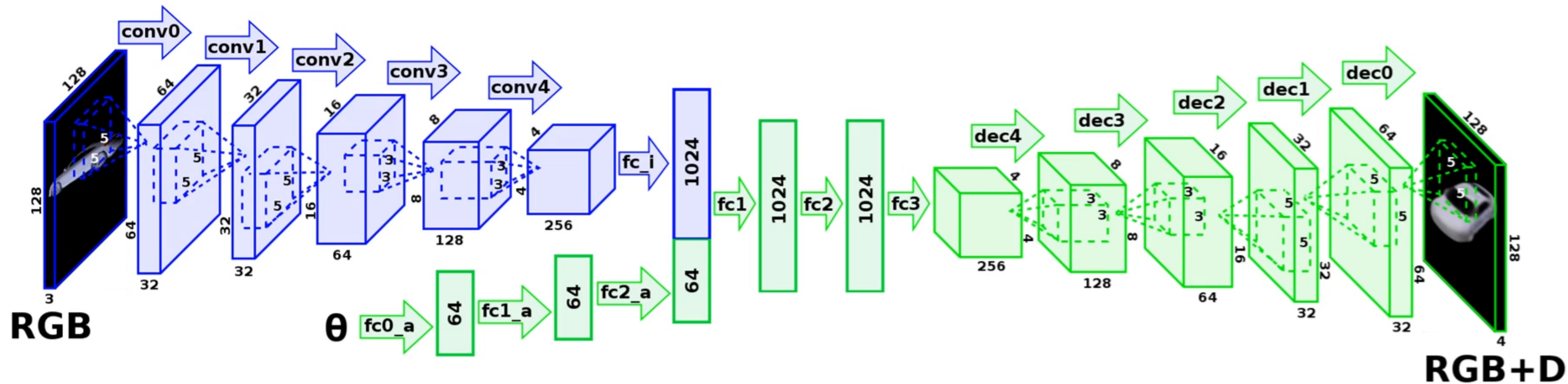
Humans have prior knowledge about 3D



**Side
view?**



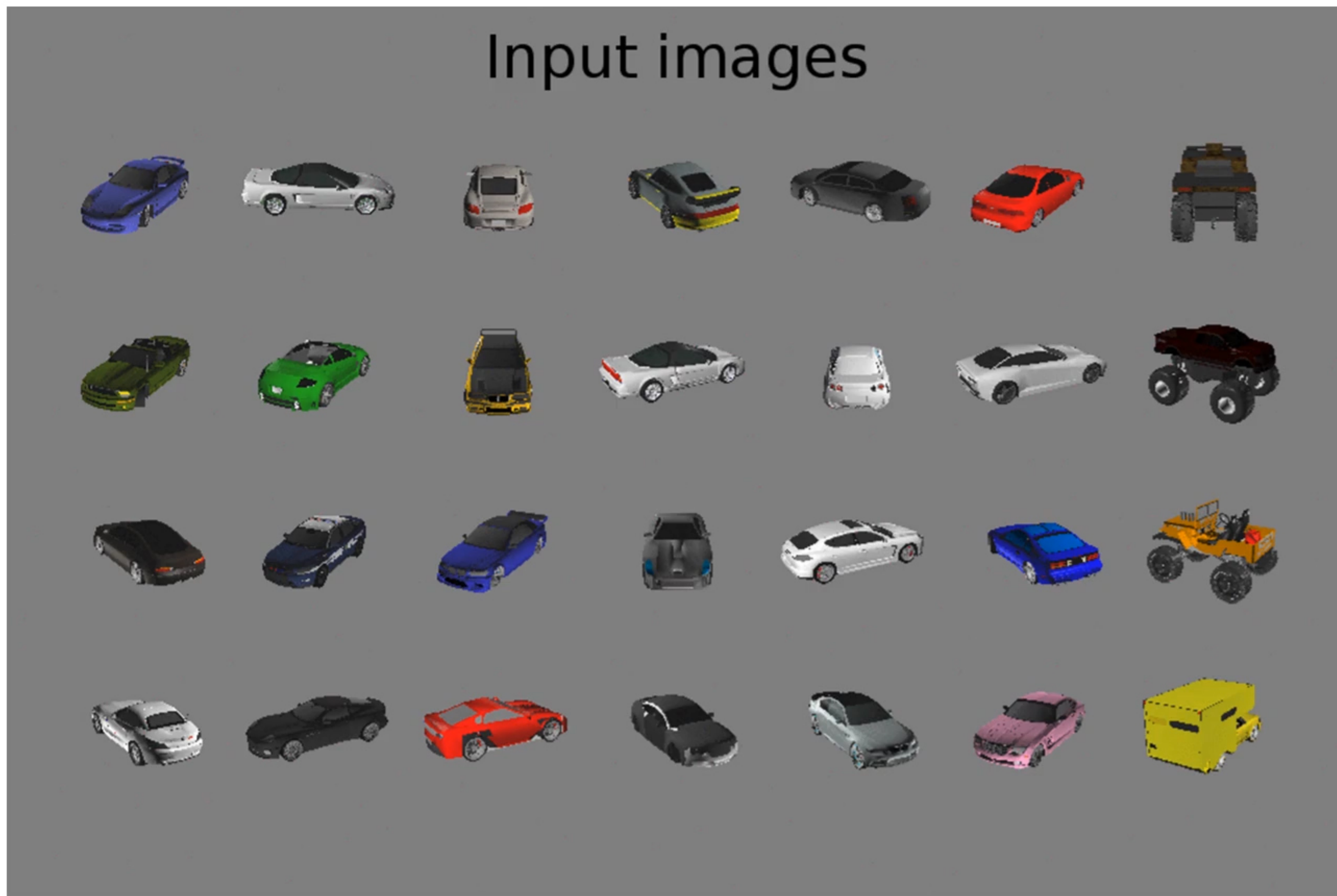
CNN for novel view prediction



Trained on renderings of synthetic 3D models



Performance on synthetic data

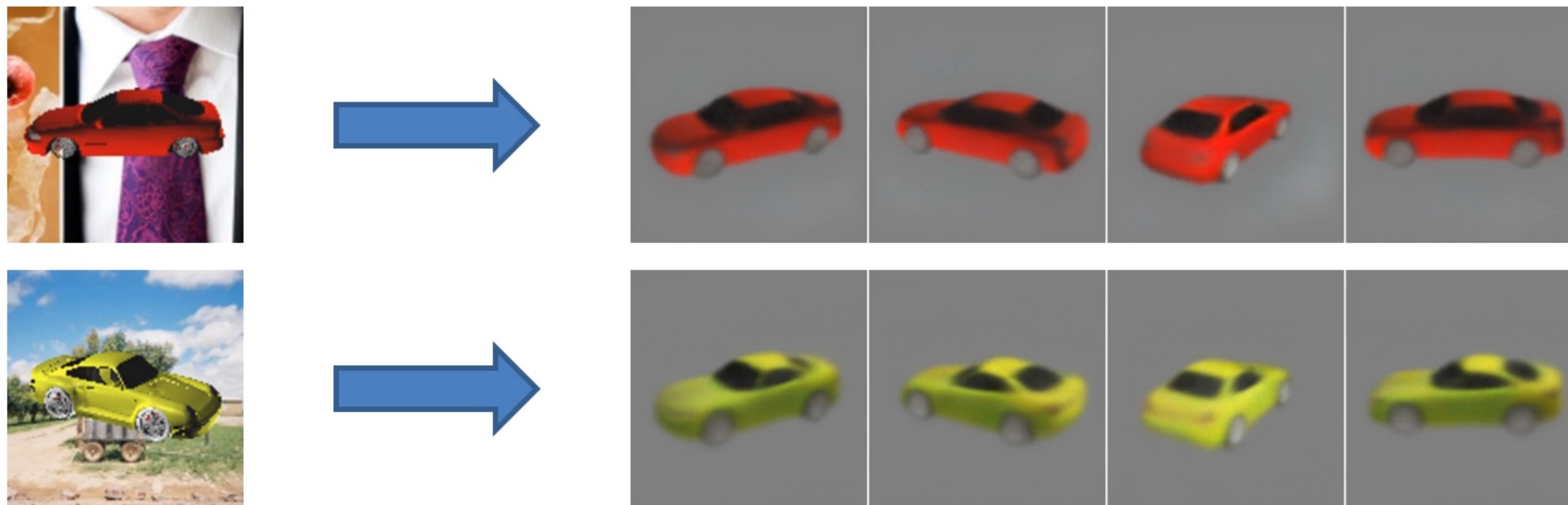


Segmentation

Training data



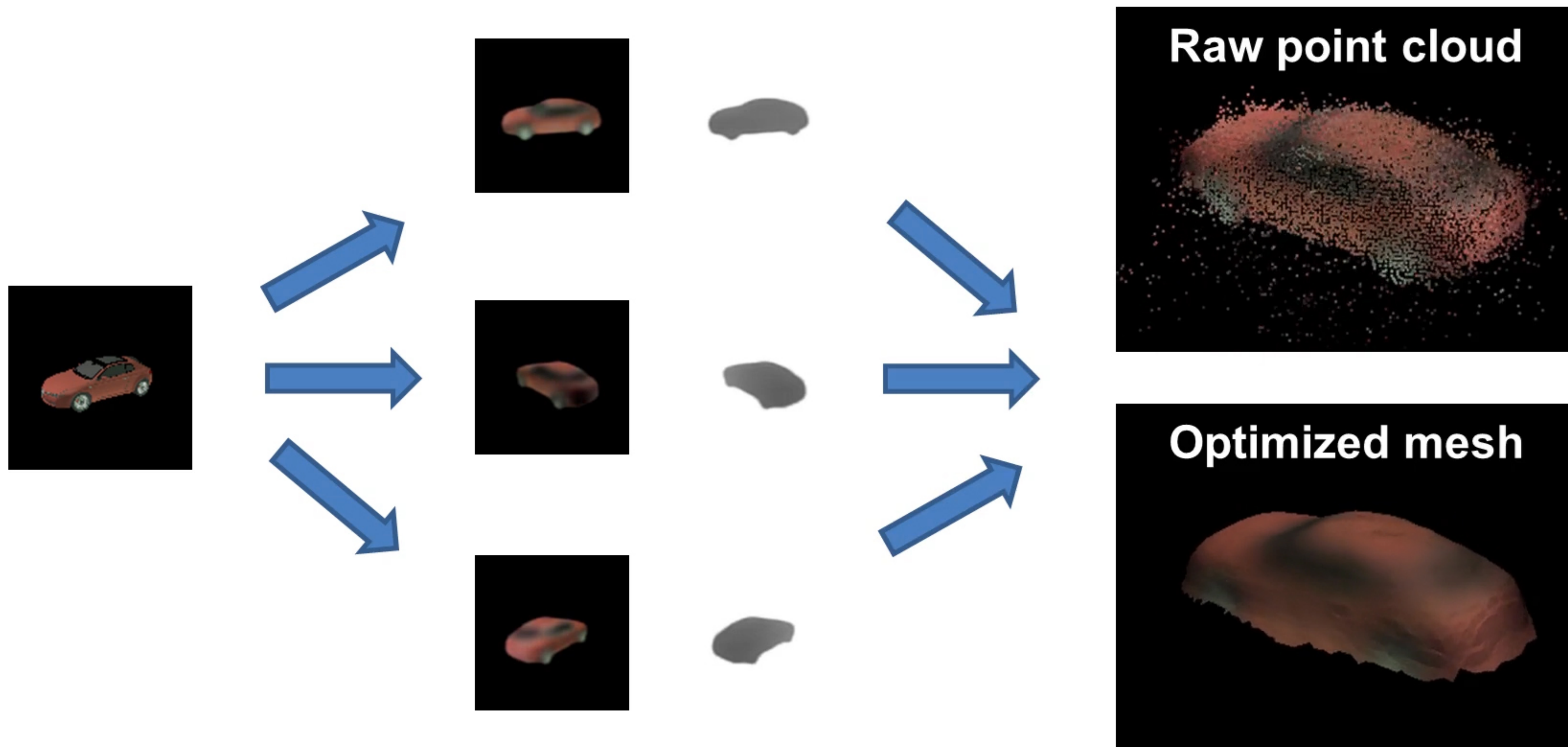
Network predictions



Trained on synthetic – works on natural



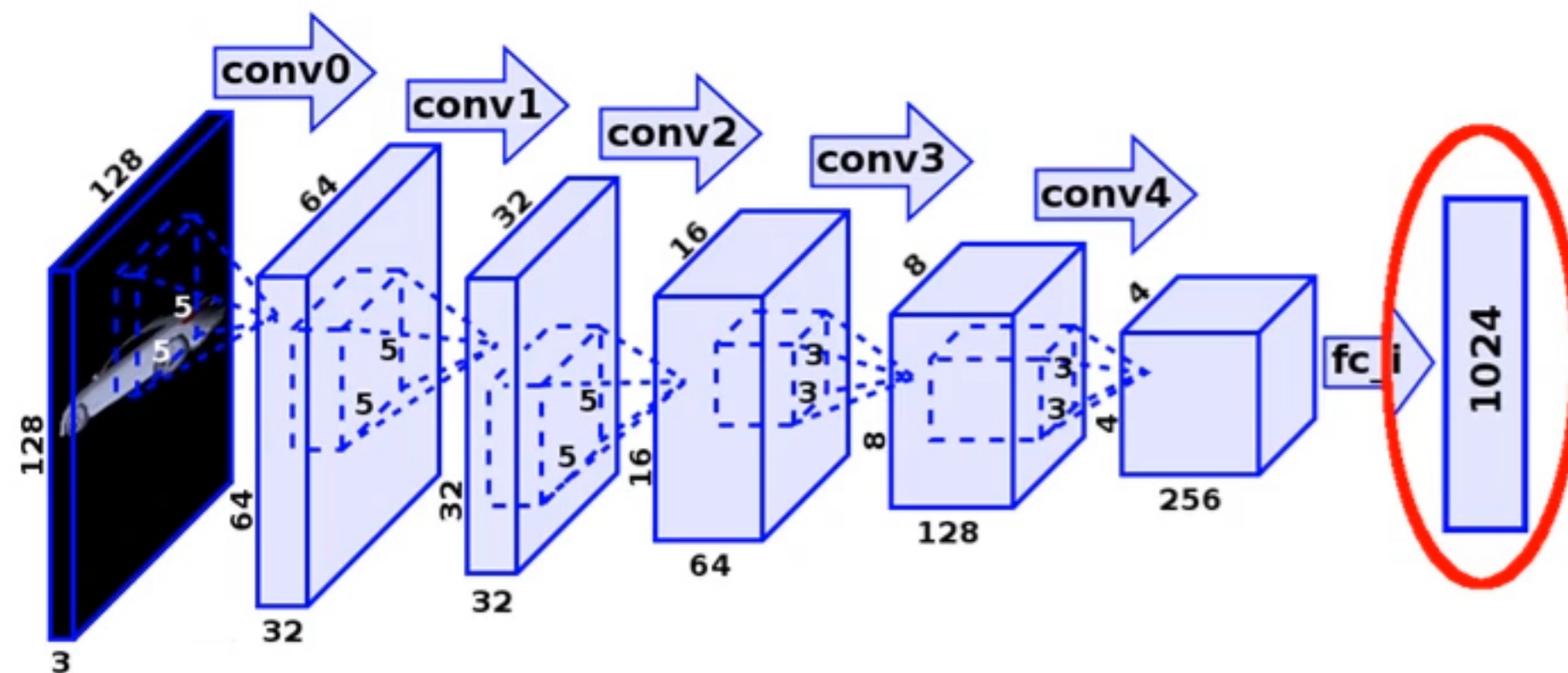
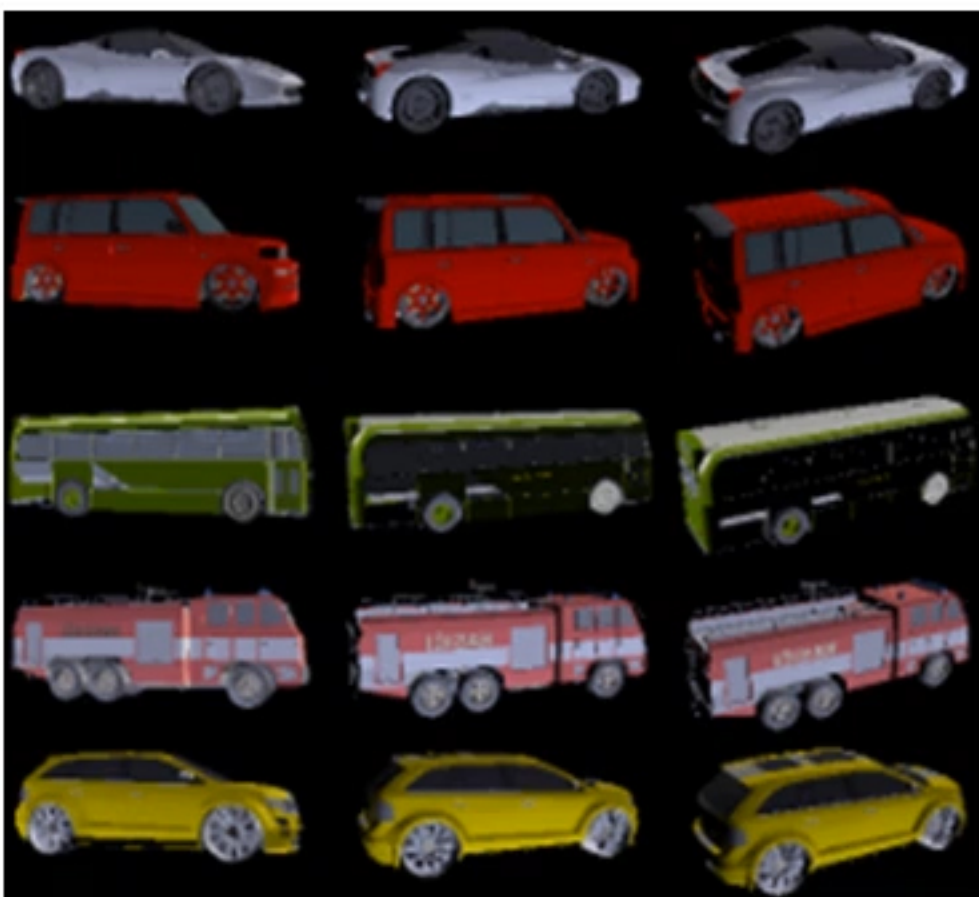
Network learns consistent 3D representation



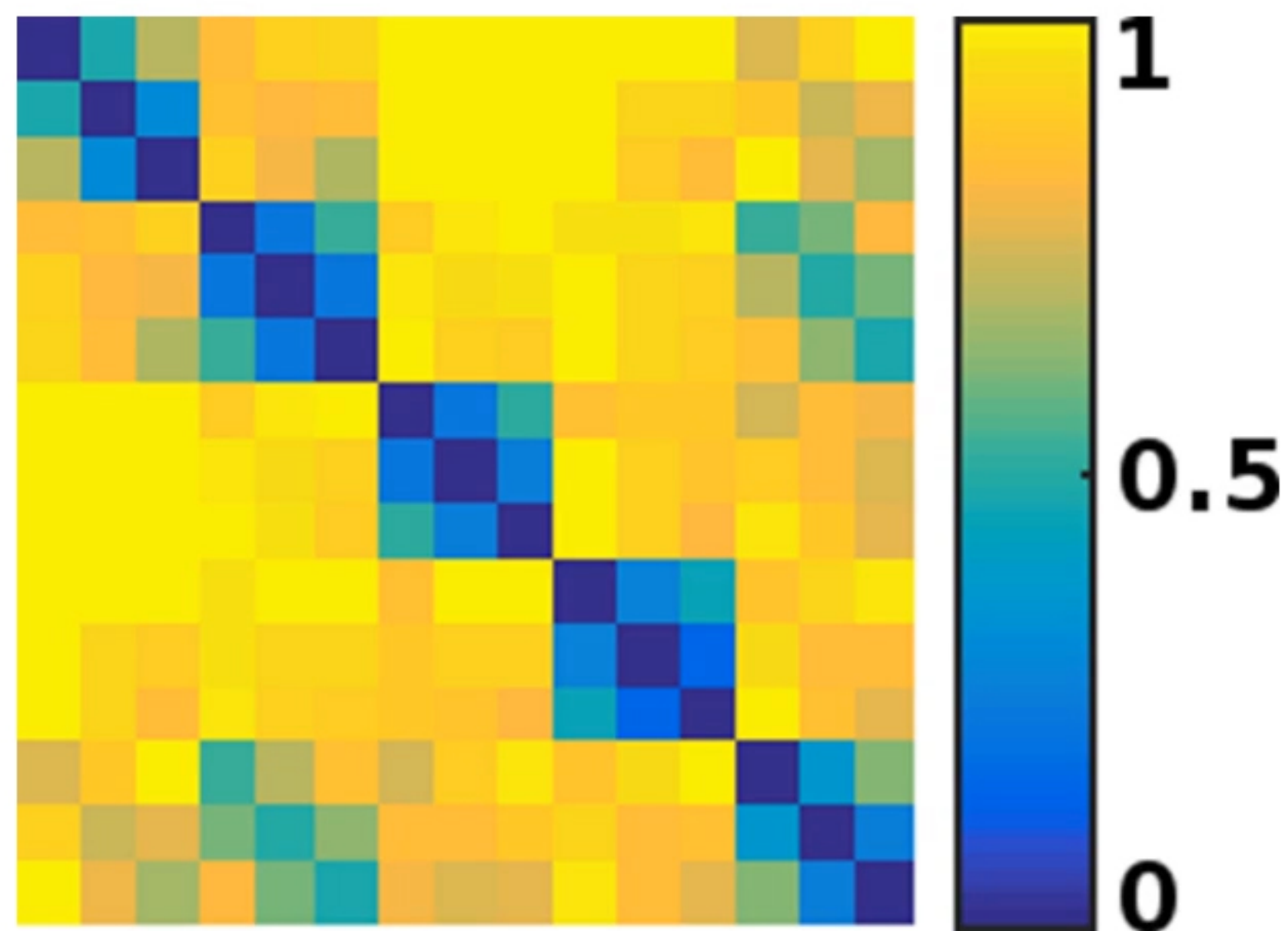
Informative inputs lead to better predictions



Internal representation is invariant



**pairwise
distances**



Thank you!



Maxim
Tatarchenko



Alexey
Dosovitskiy



Thomas
Brox

Poster: S-3B-09
15:00 – 16:30

