Learning a Neural 3D Texture Space from 2D Exemplars

Philipp Henzler[1]   Niloy J. Mitra[1,2]   Tobias Ritschel[1]

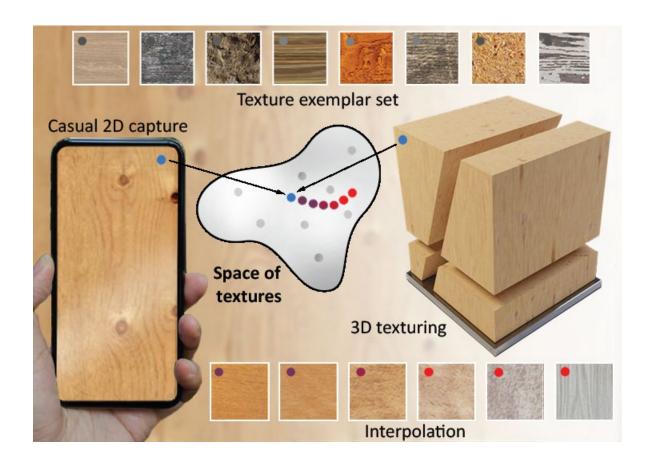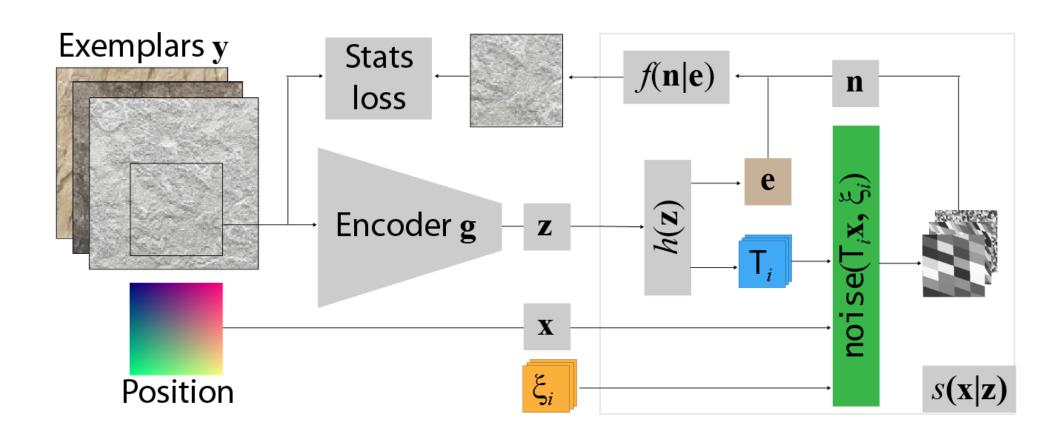[1]University College London   [2]Adobe Research
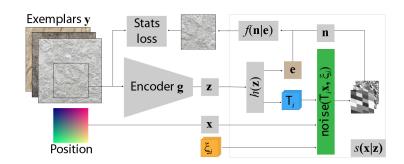
[CVPR 2020]

Motivation

- **Input** is a **2D texture** which is capture by an **implicit field**, i.e. we can sample a new texture independent of **spatial resolution** and **shape**

- **Output** is a space of 2D or 3D texture with following characteristics:

  - Continuous domain
  - Interpolatable
  - Diverse
  - Infinite zoom
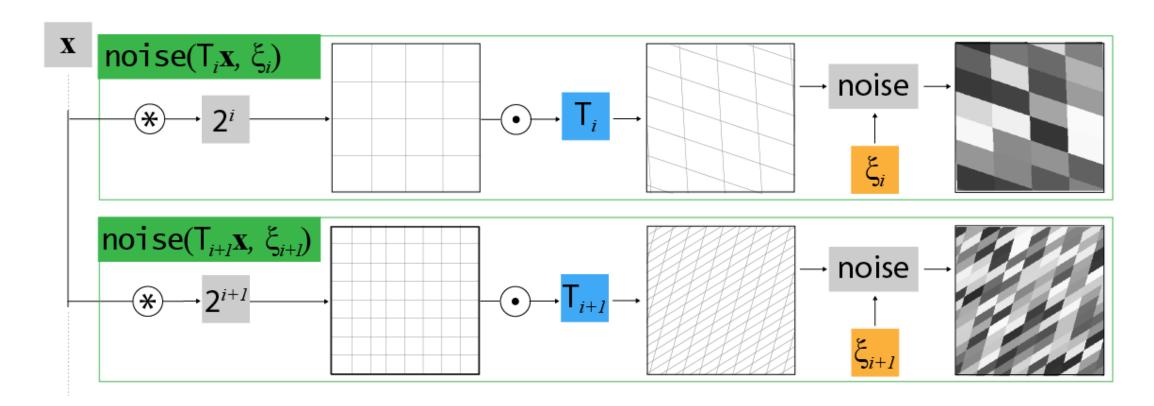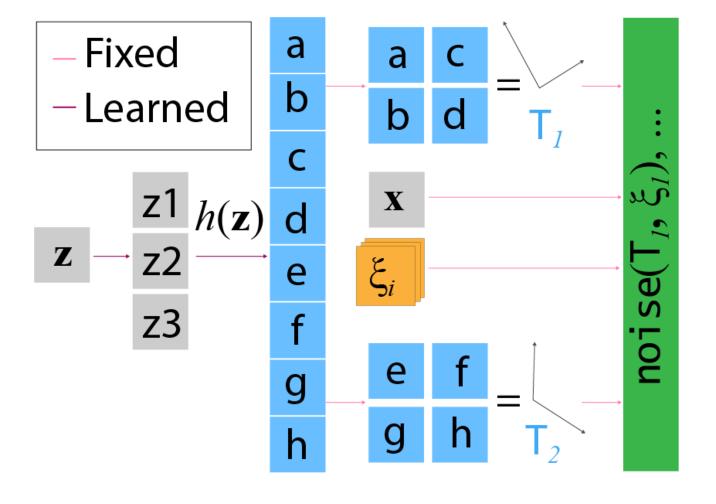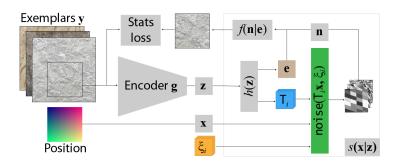 - Computationally efficient
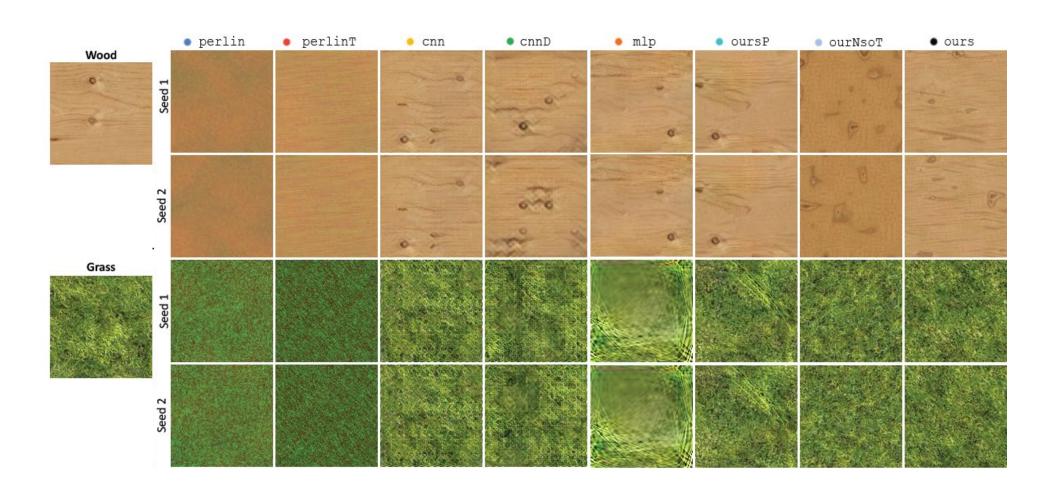
Method - Overview
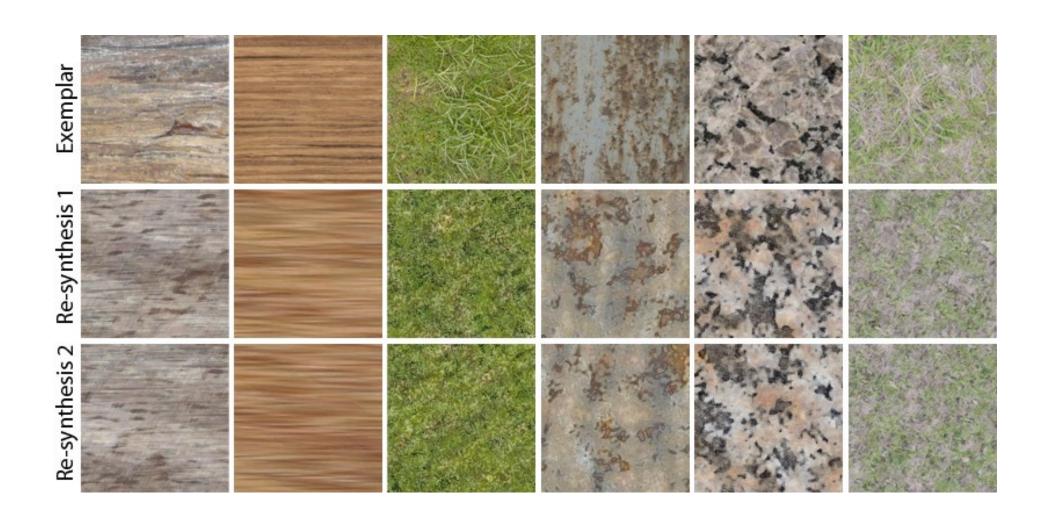
Method – Noise

Method – Translator

Results - Comparison

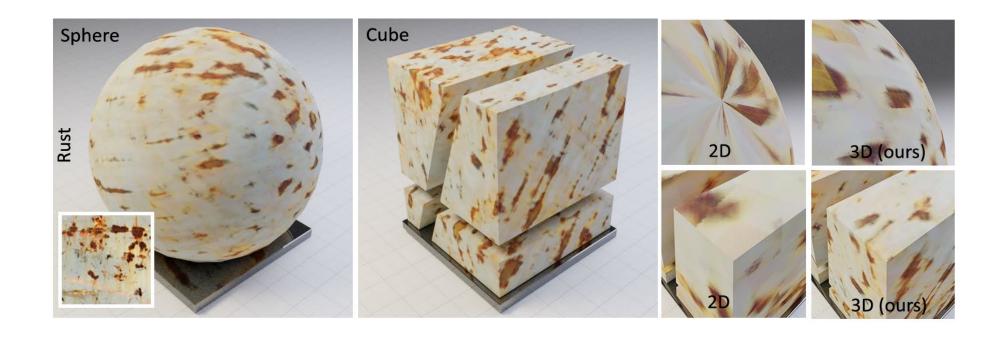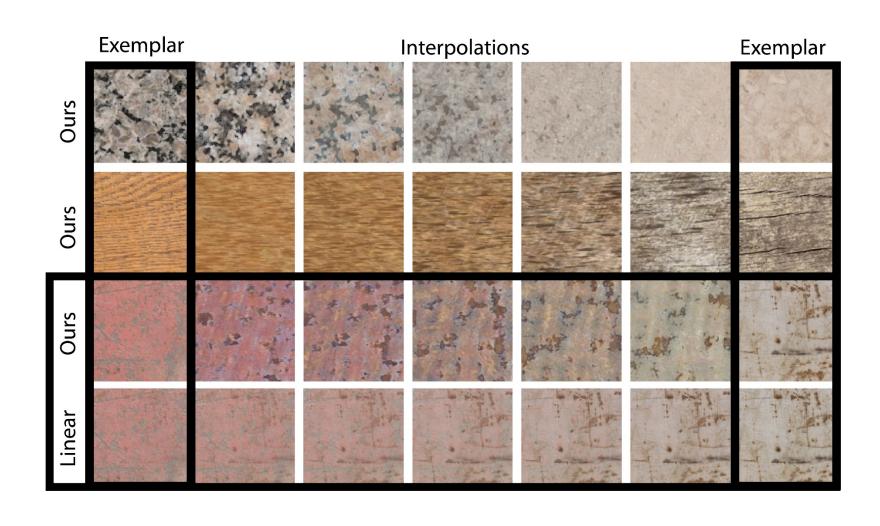# Results - Reconstruction

Results – Solid texturing

Results – Interpolation

Thank you!