

---

# Vector-Valued Infinite Task Learning in Style Transfer\*

---

Zoltán Szabó<sup>†</sup>

## Abstract

Style transfer is a central problem of machine learning. In various applications of style transfer however there is a continuum of styles to handle. In this work we show how one can leverage vector-valued reproducing kernel Hilbert spaces and infinite task learning to tackle this challenge in a principled way. Our approach is instantiated in emotion transfer, achieving low reconstruction cost on various benchmarks.

Preprint: <https://arxiv.org/abs/2102.05075>

---

\*CMStatistics: Advanced Statistical Methods for High Dimensional Data session, London, UK. Dec. 18-20, 2021; abstract.

<sup>†</sup>This is joint work with Alex Lambert, Sanjeel Parekh, and Florence d'Alché-Buc.