BEST PAPER AWARD
PREISTRÄGER
»IMPACT ON SCIENCE«
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»Latent Normalizing Flows for Many-to-Many Cross-Domain Mappings«
**PROBLEM**

- Cross Domain tasks
  - Image conditioned text generation
  - Text-conditioned image synthesis
  - Learning joint representations of images and text
Latent Normalizing Flows for Many-to-Many Mappings (LNFMM) framework for diverse bi-directional many-to-many mappings

Captures heterogeneous distributions by leveraging normalizing flows

Novel latent representation separating

Shared cross-domain information

Domain-specific information

Preserves heterogeneous structure of the data in latent space

Enables highly accurate and diverse generated samples of images or texts

Generated example captions:

- Two elephants standing next to each other in a river.
- A herd of elephants in a grassy area of water.
- Two elephants walking through a river while standing in the water.
- Two elephants are walking and baby in the water.
- A group of elephants walking around a watering hole.

Generated example captions:

A close up of a pizza with toppings