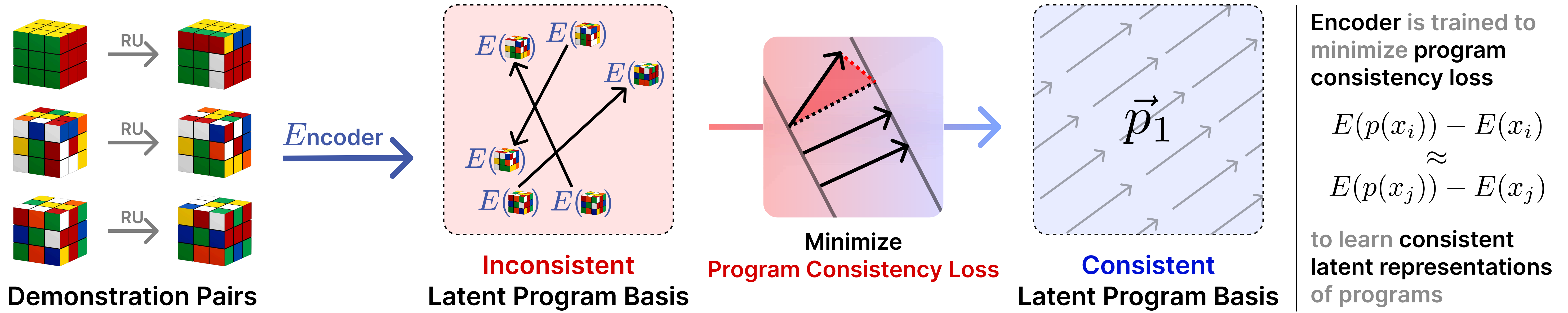


Composed-Program Induction with Latent Program Lattice

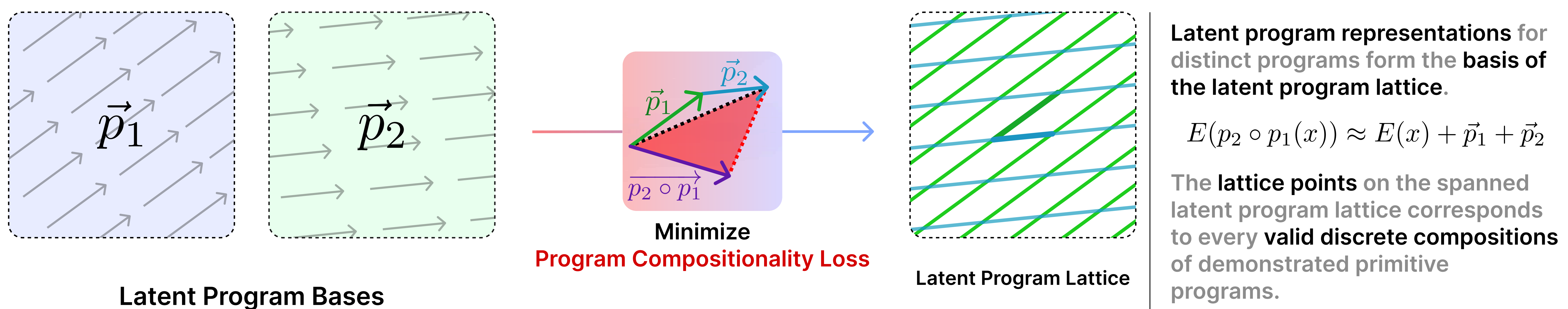
The Program-Lattice Auto-Encoder

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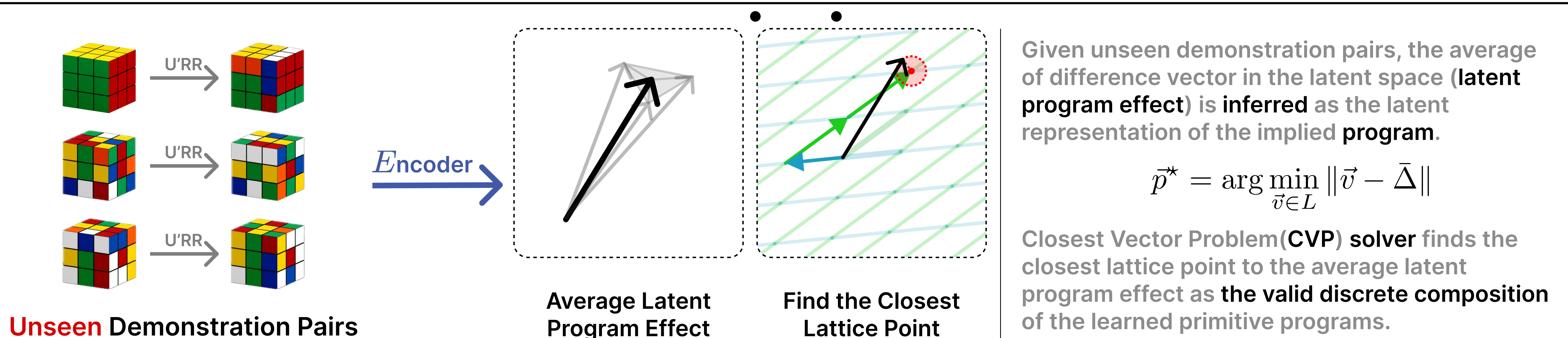
1. Learning consistent primitive program representations



2. Learning to represent program compositionality as a lattice structure



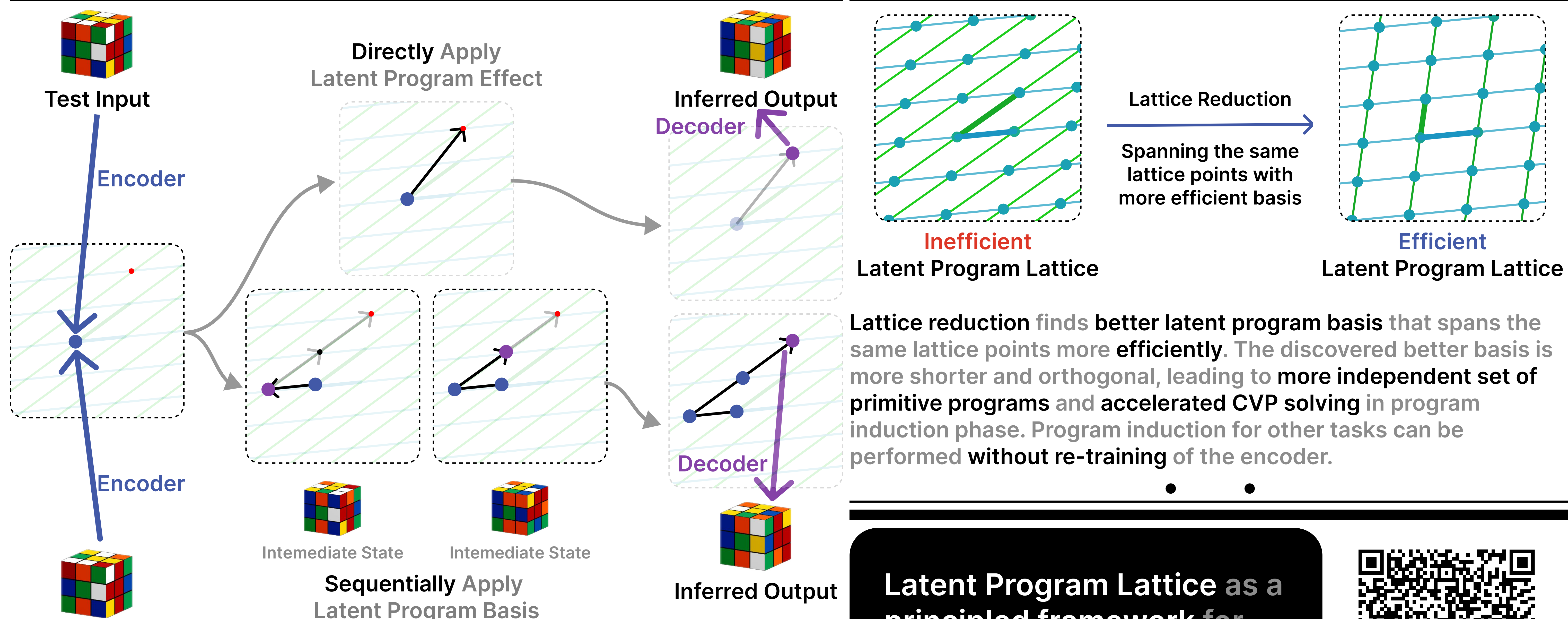
3. Inducing the implied program on the learned latent program lattice



4-A. System-1 reasoning

Fast, Intuitive

5. Abstraction via lattice reduction



4-B. System-2 reasoning

Slow, Deliberate

Latent Program Lattice as a principled framework for learning and inference in discrete compositional domain



Paper