

## Traditional Deep Learning

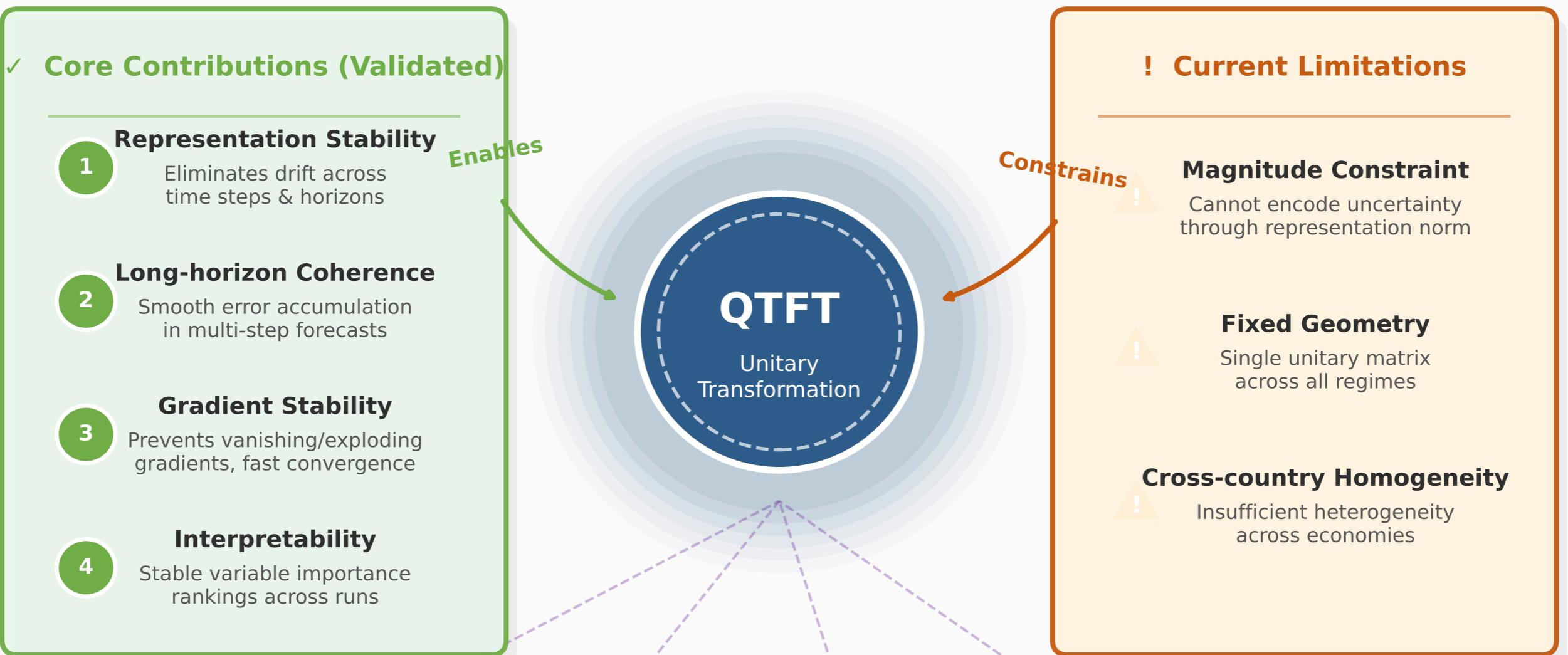
Unconstrained Representations

## QTFT (This Work)

Unitary Constraints

## Adaptive QTFT (Future)

Regime-dependent Geometry



## Future Research Directions

**F1**

### Adaptive Constraints

Regime-dependent unitary strength

**F2**

### Network Integration

Explicit cross-country interaction structures

**F3**

### Probabilistic Extension

Uncertainty decomposition & norm dynamics

**F4**

### Theoretical Foundation

Open quantum systems & information theory