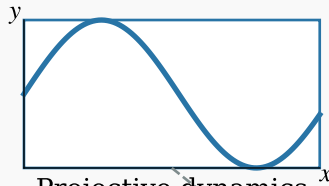# Complementary Solutions to Hermite's Problem

HAPD Algorithm
Non-subtractive approach

- Projective space $\mathbb{P}^2$
- Matrix-based approach
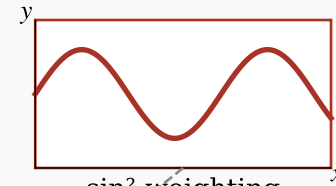- Standard floor function

Modified sin² Algorithm
Subtractive approach

- Complex plane analysis
- Transcendental terms
- Phase-preserving floor

Projective dynamics

complementary methods

sin²-weighting

Common Properties

- Periodic precisely for cubic numbers
- Handle complex conjugate roots