Tri-Dimensional S-Entropy Navigation

S_k (Information)

Slide →

Window

Knowledge space

S_t (Frequency)

Slide →

Window

S_t

Temporal space

S_e (Thermodynamic)

Slide →

Window

Energy accessibility

Combined 3D Window

S_k

$S = S\_k \times S\_t \times S\_e$

S_e
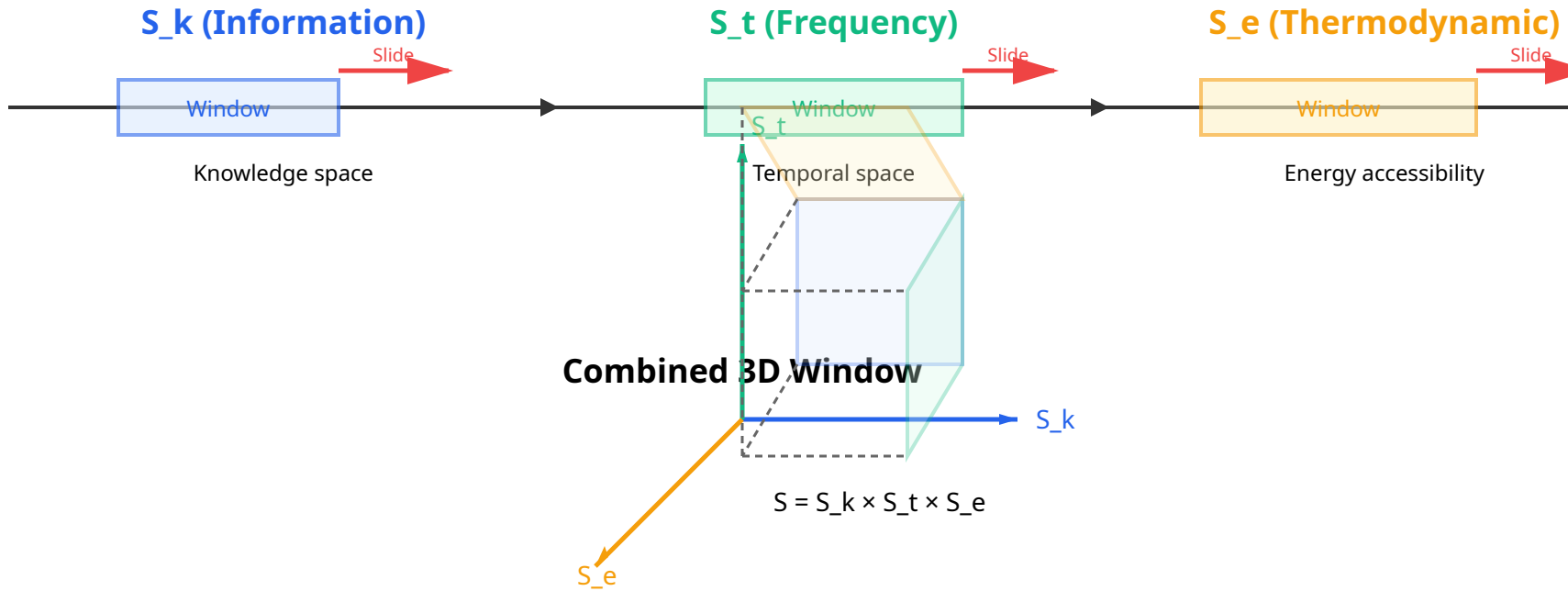
Automatic Harmonic Selection

- **S_k** : Information content filter
- **S_t** : Frequency accessibility window
- **S_e** : Thermodynamic feasibility constraint

Optimal harmonic: $\omega^* = \text{argmax}_{\{\omega \in S\}} \text{Utility}(\omega)$

BMD Filtering

Select sufficient subset from

$\sim 10^6$ to 10^{12} configurations

per observable frequency

Polynomial-time navigation of exponentially large state spaces
Tri-dimensional windows + BMD filtering = Efficient computation