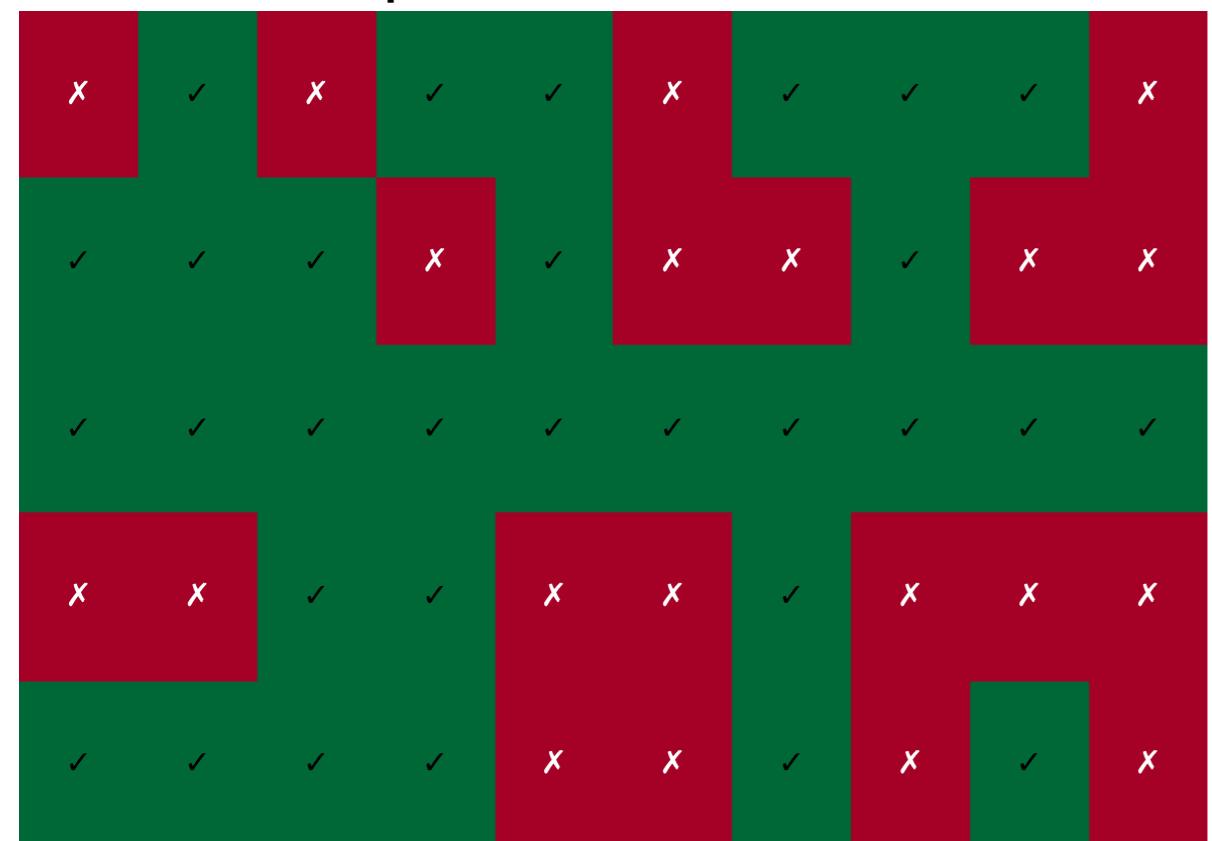
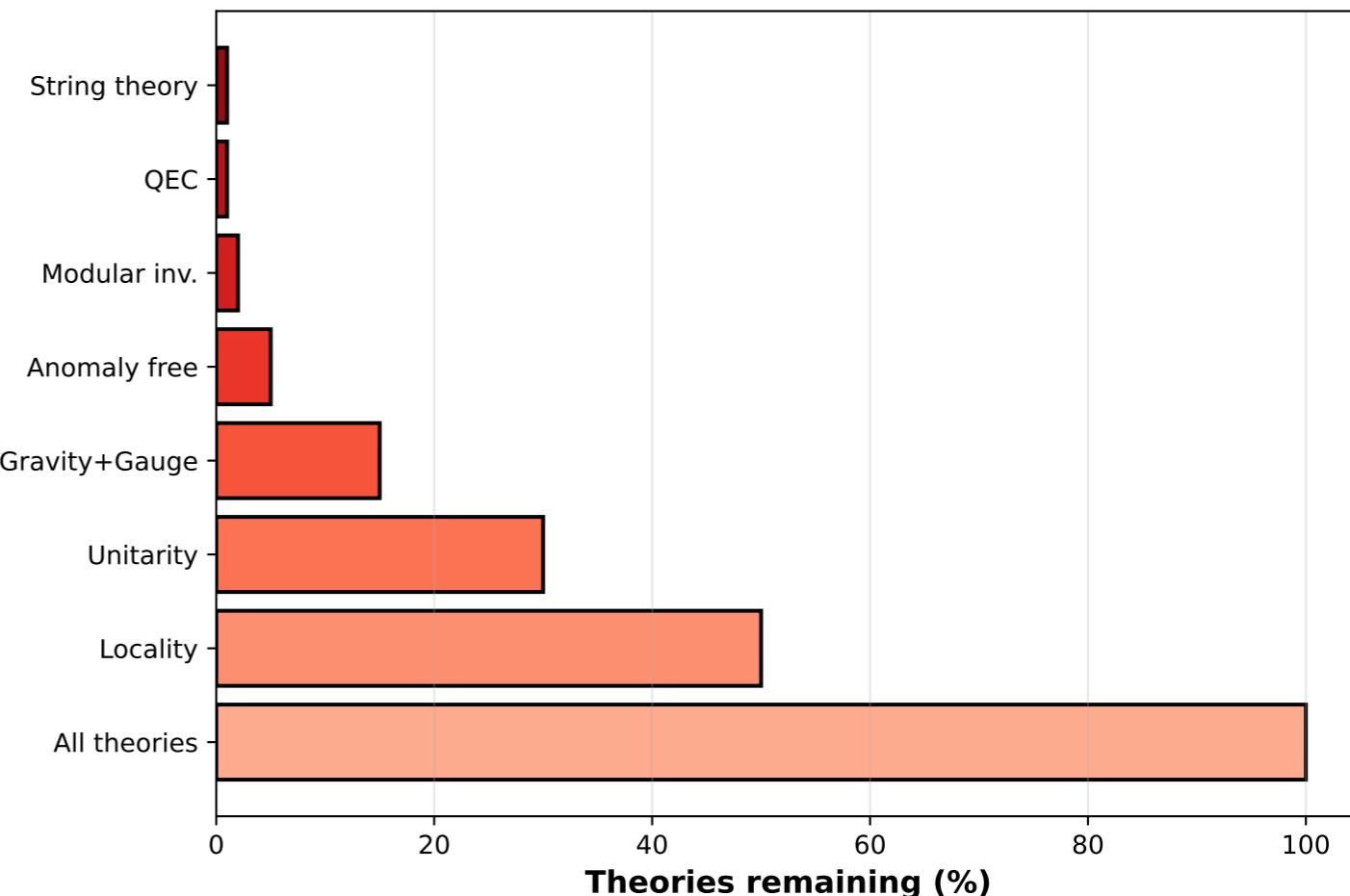
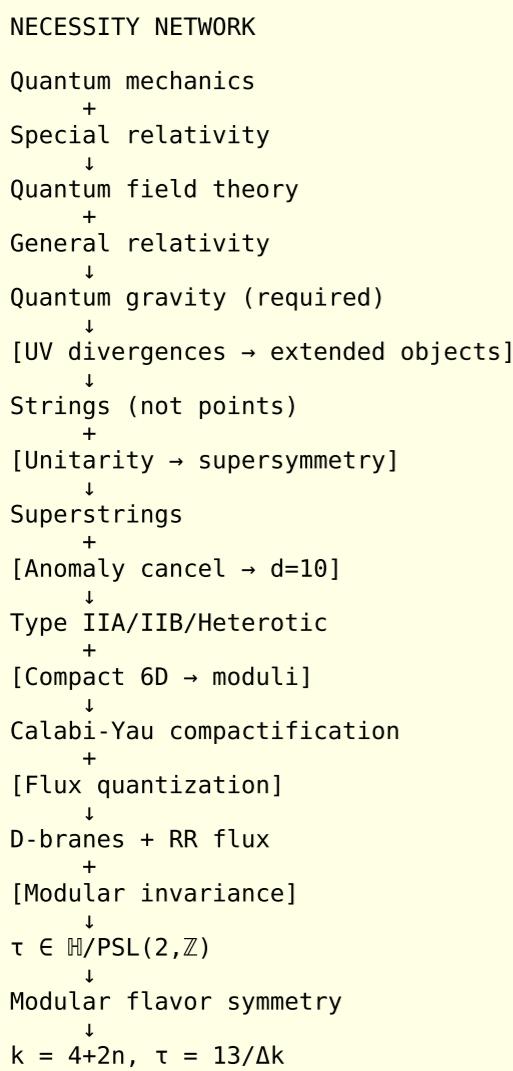


A: Requirement Satisfaction Matrix**B: The Elimination Funnel****C: From QM+GR to Flavor**

UNIQUENESS THEOREM

CLAIM:
String theory is the unique consistent quantum theory of gravity with:

- Locality
- Unitarity
- Gauge forces + gravity
- Anomaly cancellation
- Modular structure
- Error correction (holography)

PROOF:
All alternatives fail ≥ 1 requirement
(see matrix Panel A)

CONSEQUENCE:
Flavor geometry is NOT phenomenology.
It is REQUIRED by quantum consistency.

$k = 4+2n$: flux quantization (required)
 $\tau = 13/\Delta k$: modular parameter (required)
 A_4 symmetry: from $\text{PSL}(2, \mathbb{Z})$ (required)

Zero phenomenological input.
Pure mathematical necessity.