

Quark Sector (Toy) — CKM/PMNS Sketch (ASCII-safe)

Toy quark sector note (qualitative):

- Bulk masses (c_Q , c_u , c_d) localize zero-mode profiles; effective 4D Yukawas $\sim \text{overlap}(H, Q, u/d)$.
- With $O(1)$ 5D Yukawas and modest spread in c-parameters, realize $m_u \ll m_c \ll m_t$ and $m_d \ll m_s \ll m_b$.
- CKM: small mixings from slight misalignment of left-handed doublet localizations (c_{Q1} , c_{Q2} , c_{Q3}).
- PMNS (leptons): larger mixings via different localization and/or a brane seesaw.
- Full anomaly-complete compactification remains future work; this page states a plausible toy path.