

Up is Down:

Ab-Initio Approaches to
Superaligned Beta Decay
to Test for New Physics



THE METHOD

Ab Initio = From the beginning
IMSRG → Lighten Computational
Load

V_{ud}

THE MOTIVATION

CKM Matrix: Quark mixing

$$\begin{bmatrix} V_{ud} & V_{us} & V_{ub} \\ V_{cd} & V_{cs} & V_{cb} \\ V_{td} & V_{ts} & V_{tb} \end{bmatrix}$$

THE SUBJECT

Superallowed beta decay

