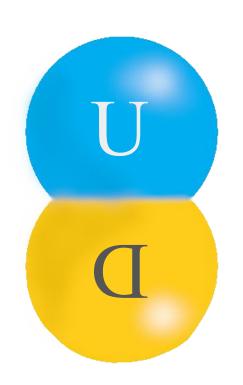


Up is Down:

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

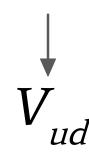


Benjamin Scully Dr. Jason Holt

THE METHOD

Ab Initio = From the beginning IMSRG → Lighten Computational

Load



THE MOTIVATION

CKM Matrix: Quark mixing

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

THE SUBJECT

Superallowed beta decay

