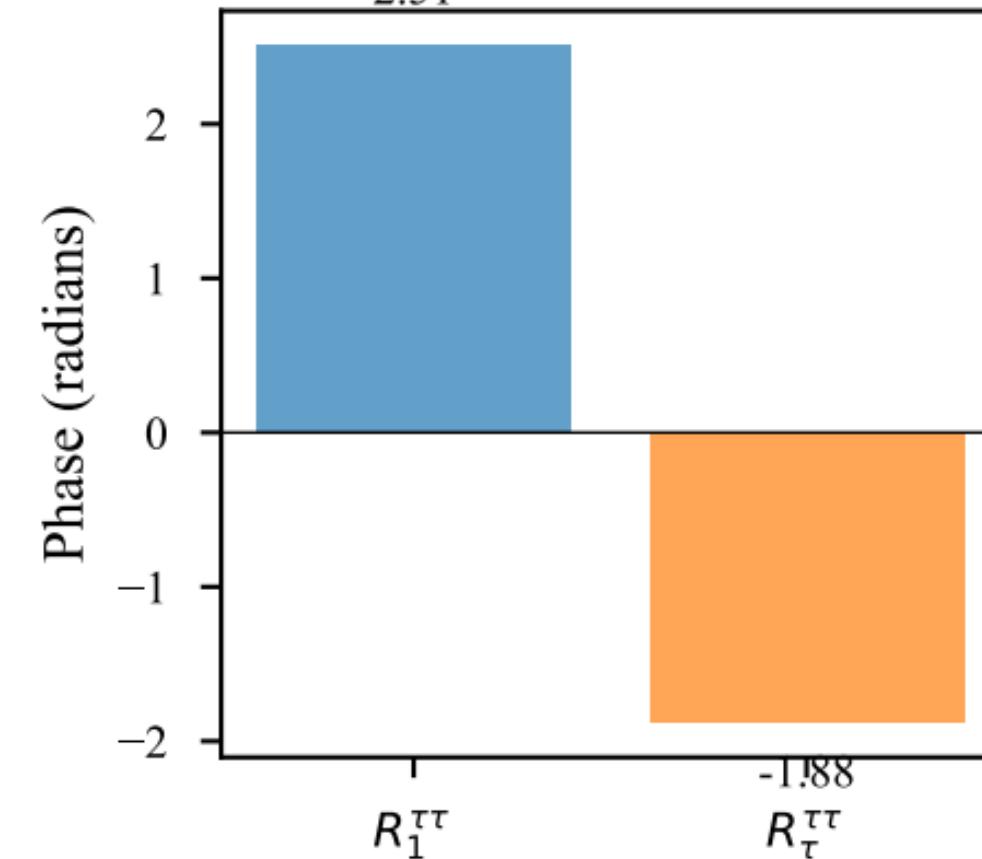
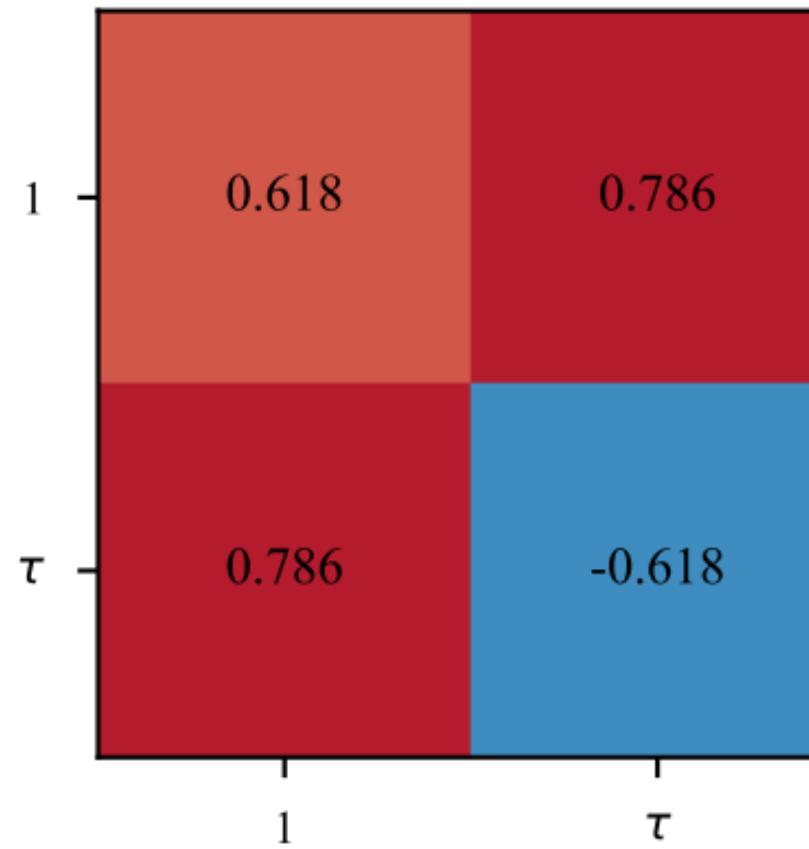


(a) R-Matrix Phases



(b) F-Matrix $F_\tau^{\tau\tau\tau}$



(c) Position-Dependent Braiding

Outer braids ($i = 1, n - 1$):

$$B_i = \text{diag}(R_1^{\tau\tau}, R_\tau^{\tau\tau}, \dots)$$

Middle braids ($1 < i < n - 1$):

$$B_i = F \cdot \text{diag}(R) \cdot F^\dagger$$