

Table 1: Fermionic case $\wedge^3 \mathbb{C}^9$

dominant 1-PS	Inequality	w
$(2, 2, -1, -1, -1, -1, -1, -1, -4)$	$2\lambda_1 + 2\lambda_2 - 4\lambda_3 - \lambda_4 - \lambda_5 - \lambda_6 - \lambda_7 - \lambda_8 - \lambda_9 \leq 0$	$(0, 1, 3, 4, 5, 6, 7, 8, 2)$
	$-\lambda_1 + 2\lambda_2 - \lambda_3 - \lambda_4 + 2\lambda_5 - \lambda_6 - 4\lambda_7 - \lambda_8 - \lambda_9 \leq 0$	$(1, 4, 0, 2, 3, 5, 7, 8, 6)$
	$-\lambda_1 + 2\lambda_2 - \lambda_3 + 2\lambda_4 - \lambda_5 - 4\lambda_6 - \lambda_7 - \lambda_8 - \lambda_9 \leq 0$	$(1, 3, 0, 2, 4, 6, 7, 8, 5)$
	$2\lambda_1 - \lambda_2 - \lambda_3 - \lambda_4 - \lambda_5 - \lambda_6 - \lambda_7 + 2\lambda_8 - 4\lambda_9 \leq 0$	$(0, 7, 1, 2, 3, 4, 5, 6, 8)$
	$-\lambda_1 - \lambda_2 + 2\lambda_3 + 2\lambda_4 - \lambda_5 - \lambda_6 - 4\lambda_7 - \lambda_8 - \lambda_9 \leq 0$	$(2, 3, 0, 1, 4, 5, 7, 8, 6)$
	$2\lambda_1 - \lambda_2 - \lambda_3 + 2\lambda_4 - 4\lambda_5 - \lambda_6 - \lambda_7 - \lambda_8 - \lambda_9 \leq 0$	$(0, 3, 1, 2, 5, 6, 7, 8, 4)$
	$2\lambda_1 - \lambda_2 - \lambda_3 - \lambda_4 - \lambda_5 + 2\lambda_6 - 4\lambda_7 - \lambda_8 - \lambda_9 \leq 0$	$(0, 5, 1, 2, 3, 4, 7, 8, 6)$
$(1, 0, 0, 0, 0, -1, -1, -1, -1)$	$\lambda_2 - \lambda_3 - \lambda_6 - \lambda_7 - \lambda_9 \leq 0$	$(1, 0, 3, 4, 7, 2, 5, 6, 8)$
	$\lambda_4 - \lambda_5 - \lambda_6 - \lambda_7 - \lambda_9 \leq 0$	$(3, 0, 1, 2, 7, 4, 5, 6, 8)$
	$\lambda_1 - \lambda_3 - \lambda_5 - \lambda_7 - \lambda_9 \leq 0$	$(0, 1, 3, 5, 7, 2, 4, 6, 8)$
$(2, 1, 1, 0, -1, -1, -2, -3, -3)$	$2\lambda_1 - 2\lambda_2 - \lambda_3 - \lambda_4 + \lambda_6 - 3\lambda_7 + \lambda_8 - 3\lambda_9 \leq 0$	$(0, 5, 7, 4, 2, 3, 1, 6, 8)$
	$\lambda_1 + 2\lambda_2 - 3\lambda_3 + \lambda_4 - 3\lambda_5 - 2\lambda_6 - \lambda_7 - \lambda_9 \leq 0$	$(1, 0, 3, 7, 6, 8, 5, 2, 4)$
	$\lambda_1 + \lambda_2 - 2\lambda_3 + 2\lambda_4 - 3\lambda_5 - 3\lambda_6 - \lambda_7 - \lambda_8 \leq 0$	$(3, 0, 1, 8, 6, 7, 2, 4, 5)$
	$\lambda_1 + 2\lambda_2 - 3\lambda_3 - \lambda_4 - 2\lambda_5 - \lambda_6 + \lambda_8 - 3\lambda_9 \leq 0$	$(1, 0, 7, 6, 3, 5, 4, 2, 8)$
	$2\lambda_1 + \lambda_2 - 3\lambda_3 + \lambda_4 - 3\lambda_5 - 2\lambda_6 - \lambda_7 - \lambda_8 \leq 0$	$(0, 1, 3, 8, 6, 7, 5, 2, 4)$
	$2\lambda_1 + \lambda_2 - 3\lambda_3 - 2\lambda_4 - \lambda_5 - \lambda_6 + \lambda_8 - 3\lambda_9 \leq 0$	$(0, 1, 7, 6, 4, 5, 3, 2, 8)$
	$\lambda_1 + 2\lambda_2 - 3\lambda_3 + \lambda_4 - 2\lambda_5 - 3\lambda_6 - \lambda_7 - \lambda_8 \leq 0$	$(1, 0, 3, 8, 6, 7, 4, 2, 5)$
	$-\lambda_1 + \lambda_3 + 2\lambda_4 - 3\lambda_5 - 2\lambda_6 - \lambda_7 + \lambda_8 - 3\lambda_9 \leq 0$	$(3, 2, 7, 1, 0, 6, 5, 4, 8)$
$(5, 2, 2, -1, -1, -4, -4, -7, -7)$	$2\lambda_1 + 2\lambda_2 - 4\lambda_3 + 5\lambda_4 - 7\lambda_5 - 7\lambda_6 - \lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(3, 0, 1, 6, 8, 2, 7, 4, 5)$
	$2\lambda_1 + 5\lambda_2 - 7\lambda_3 - 4\lambda_4 + 2\lambda_5 - \lambda_6 - 7\lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(1, 0, 4, 5, 8, 3, 7, 2, 6)$
	$-\lambda_1 - \lambda_2 + 2\lambda_3 + 5\lambda_4 - 7\lambda_5 - 4\lambda_6 - 4\lambda_7 + 2\lambda_8 - 7\lambda_9 \leq 0$	$(3, 2, 7, 0, 1, 5, 6, 4, 8)$
	$5\lambda_1 - 4\lambda_2 - \lambda_3 + 2\lambda_4 - 7\lambda_5 - 4\lambda_6 - \lambda_7 + 2\lambda_8 - 7\lambda_9 \leq 0$	$(0, 3, 7, 2, 6, 1, 5, 4, 8)$
	$2\lambda_1 - 4\lambda_2 + 2\lambda_3 + 5\lambda_4 - 7\lambda_5 - \lambda_6 - 7\lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(3, 0, 2, 5, 8, 1, 7, 4, 6)$
	$5\lambda_1 - 4\lambda_2 - \lambda_3 + 2\lambda_4 - 7\lambda_5 + 2\lambda_6 - 7\lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(0, 3, 5, 2, 8, 1, 7, 4, 6)$

	$5\lambda_1 + 2\lambda_2 - 7\lambda_3 - 4\lambda_4 - \lambda_5 - 4\lambda_6 - \lambda_7 + 2\lambda_8 - 7\lambda_9 \leq 0$	$(0, 1, 7, 4, 6, 3, 5, 2, 8)$
	$5\lambda_1 - 4\lambda_2 - \lambda_3 - 4\lambda_4 - \lambda_5 + 2\lambda_6 - 7\lambda_7 + 2\lambda_8 - 7\lambda_9 \leq 0$	$(0, 5, 7, 2, 4, 1, 3, 6, 8)$
	$5\lambda_1 + 2\lambda_2 - 7\lambda_3 - 4\lambda_4 - \lambda_5 + 2\lambda_6 - 7\lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(0, 1, 5, 4, 8, 3, 7, 2, 6)$
	$5\lambda_1 + 2\lambda_2 - 7\lambda_3 + 2\lambda_4 - 7\lambda_5 - 4\lambda_6 - \lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(0, 1, 3, 6, 8, 5, 7, 2, 4)$
	$2\lambda_1 + 5\lambda_2 - 7\lambda_3 + 2\lambda_4 - 7\lambda_5 - 4\lambda_6 - \lambda_7 - \lambda_8 - 4\lambda_9 \leq 0$	$(1, 0, 3, 6, 7, 5, 8, 2, 4)$
	$2\lambda_1 + 5\lambda_2 - 7\lambda_3 - \lambda_4 - 4\lambda_5 - 4\lambda_6 - \lambda_7 + 2\lambda_8 - 7\lambda_9 \leq 0$	$(1, 0, 7, 3, 6, 4, 5, 2, 8)$
	$-4\lambda_1 + 2\lambda_2 + 2\lambda_3 + 5\lambda_4 - \lambda_5 - 7\lambda_6 - 7\lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(3, 1, 2, 4, 8, 0, 7, 5, 6)$
	$2\lambda_1 + 5\lambda_2 - 7\lambda_3 + 2\lambda_4 - 4\lambda_5 - 7\lambda_6 - \lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(1, 0, 3, 6, 8, 4, 7, 2, 5)$
	$-4\lambda_1 + 5\lambda_2 - \lambda_3 + 2\lambda_4 + 2\lambda_5 - 7\lambda_6 - 7\lambda_7 - 4\lambda_8 - \lambda_9 \leq 0$	$(1, 3, 4, 2, 8, 0, 7, 5, 6)$
$(1, 1, 0, 0, 0, -1, -1, -1, -2)$	$\lambda_1 + \lambda_2 - 2\lambda_3 - \lambda_5 - \lambda_6 - \lambda_7 \leq 0$	$(0, 1, 3, 7, 8, 4, 5, 6, 2)$
	$\lambda_1 - \lambda_3 - \lambda_4 - \lambda_5 + \lambda_8 - 2\lambda_9 \leq 0$	$(0, 7, 1, 5, 6, 2, 3, 4, 8)$
	$\lambda_2 - \lambda_3 + \lambda_4 - 2\lambda_5 - \lambda_6 - \lambda_8 \leq 0$	$(1, 3, 0, 6, 8, 2, 5, 7, 4)$
	$\lambda_2 - \lambda_3 + \lambda_4 - \lambda_5 - 2\lambda_6 - \lambda_7 \leq 0$	$(1, 3, 0, 7, 8, 2, 4, 6, 5)$
	$-\lambda_1 + \lambda_3 + \lambda_4 - 2\lambda_6 - \lambda_7 - \lambda_8 \leq 0$	$(2, 3, 1, 4, 8, 0, 6, 7, 5)$
	$-\lambda_1 + \lambda_2 + \lambda_5 - 2\lambda_6 - \lambda_7 - \lambda_8 \leq 0$	$(1, 4, 2, 3, 8, 0, 6, 7, 5)$
	$\lambda_1 - \lambda_3 + \lambda_4 - 2\lambda_5 - \lambda_6 - \lambda_7 \leq 0$	$(0, 3, 1, 7, 8, 2, 5, 6, 4)$
	$\lambda_1 - \lambda_2 - \lambda_3 - \lambda_7 + \lambda_8 - 2\lambda_9 \leq 0$	$(0, 7, 3, 4, 5, 1, 2, 6, 8)$
	$\lambda_1 - \lambda_2 - \lambda_3 + \lambda_6 - 2\lambda_7 - \lambda_9 \leq 0$	$(0, 5, 3, 4, 7, 1, 2, 8, 6)$
	$\lambda_1 + \lambda_2 - 2\lambda_3 - \lambda_4 - \lambda_5 - \lambda_9 \leq 0$	$(0, 1, 5, 6, 7, 3, 4, 8, 2)$
$(2, 2, 2, -1, -1, -1, -4, -4, -4)$	$2\lambda_1 + 2\lambda_2 - 4\lambda_3 + 2\lambda_4 - 4\lambda_5 - 4\lambda_6 - \lambda_7 - \lambda_8 - \lambda_9 \leq 0$	$(0, 1, 3, 6, 7, 8, 2, 4, 5)$
$(0, 0, 0, 0, 0, 0, 0, 0, -1)$	$-\lambda_9 \leq 0$	$(0, 1, 2, 3, 4, 5, 6, 7, 8)$
$(4, 1, 1, 1, -2, -2, -5, -5, -5)$	$\lambda_1 + 4\lambda_2 - 5\lambda_3 + \lambda_4 - 5\lambda_5 - 2\lambda_6 - 2\lambda_7 + \lambda_8 - 5\lambda_9 \leq 0$	$(1, 0, 3, 7, 5, 6, 2, 4, 8)$
	$\lambda_1 + 4\lambda_2 - 5\lambda_3 - 2\lambda_4 + \lambda_5 - 5\lambda_6 - 2\lambda_7 + \lambda_8 - 5\lambda_9 \leq 0$	$(1, 0, 4, 7, 3, 6, 2, 5, 8)$
	$-2\lambda_1 + \lambda_2 + \lambda_3 + 4\lambda_4 - 5\lambda_5 - 2\lambda_6 - 5\lambda_7 + \lambda_8 - 5\lambda_9 \leq 0$	$(3, 1, 2, 7, 0, 5, 4, 6, 8)$
	$\lambda_1 - 2\lambda_2 + \lambda_3 + 4\lambda_4 - 5\lambda_5 - 5\lambda_6 - 2\lambda_7 + \lambda_8 - 5\lambda_9 \leq 0$	$(3, 0, 2, 7, 1, 6, 4, 5, 8)$
$(1, 1, 1, 1, -2, -2, -2, -2, -2)$	$\lambda_1 - 2\lambda_2 + \lambda_3 + \lambda_4 - 2\lambda_5 + \lambda_6 - 2\lambda_7 - 2\lambda_8 - 2\lambda_9 \leq 0$	$(0, 2, 3, 5, 1, 4, 6, 7, 8)$
	$\lambda_1 + \lambda_2 - 2\lambda_3 - 2\lambda_4 + \lambda_5 + \lambda_6 - 2\lambda_7 - 2\lambda_8 - 2\lambda_9 \leq 0$	$(0, 1, 4, 5, 2, 3, 6, 7, 8)$
	$-2\lambda_1 + \lambda_2 + \lambda_3 + \lambda_4 + \lambda_5 - 2\lambda_6 - 2\lambda_7 - 2\lambda_8 - 2\lambda_9 \leq 0$	$(1, 2, 3, 4, 0, 5, 6, 7, 8)$
	$\lambda_1 + \lambda_2 - 2\lambda_3 + \lambda_4 - 2\lambda_5 - 2\lambda_6 + \lambda_7 - 2\lambda_8 - 2\lambda_9 \leq 0$	$(0, 1, 3, 6, 2, 4, 5, 7, 8)$