

Table 1: Ferminonic case $\wedge^4 \mathbb{C}^9$

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

	$\lambda_1 + 2\lambda_2 - 3\lambda_4 - 2\lambda_5 - \lambda_6 - 3\lambda_8 - \lambda_9 \geq 0$	$(1, 0, 2, 6, 5, 8, 4, 3, 7)$
	$\lambda_1 - \lambda_3 + 2\lambda_5 - 3\lambda_6 - 3\lambda_7 - 2\lambda_8 - \lambda_9 \geq 0$	$(4, 0, 1, 3, 2, 8, 7, 5, 6)$
	$\lambda_1 + 2\lambda_3 - 3\lambda_4 - \lambda_5 - 3\lambda_7 - 2\lambda_8 - \lambda_9 \geq 0$	$(2, 0, 1, 5, 4, 8, 7, 3, 6)$
	$\lambda_1 + 2\lambda_2 - 2\lambda_3 - \lambda_4 - 3\lambda_6 - 3\lambda_8 - \lambda_9 \geq 0$	$(1, 0, 4, 6, 3, 8, 2, 5, 7)$
	$\lambda_1 - \lambda_2 + 2\lambda_5 - 3\lambda_6 - 2\lambda_7 - 3\lambda_8 - \lambda_9 \geq 0$	$(4, 0, 2, 3, 1, 8, 6, 5, 7)$
	$\lambda_2 + 2\lambda_3 - 3\lambda_4 - 2\lambda_6 - \lambda_7 - 3\lambda_8 - \lambda_9 \geq 0$	$(2, 1, 0, 4, 6, 8, 5, 3, 7)$
	$\lambda_3 - \lambda_4 + 2\lambda_5 - 3\lambda_6 - 2\lambda_7 - 3\lambda_8 - \lambda_9 \geq 0$	$(4, 2, 0, 1, 3, 8, 6, 5, 7)$
	$\lambda_2 + 2\lambda_3 - 3\lambda_4 - \lambda_6 - 3\lambda_7 - 2\lambda_8 - \lambda_9 \geq 0$	$(2, 1, 0, 4, 5, 8, 7, 3, 6)$
	$\lambda_2 - \lambda_4 + 2\lambda_5 - 3\lambda_6 - 3\lambda_7 - 2\lambda_8 - \lambda_9 \geq 0$	$(4, 1, 0, 2, 3, 8, 7, 5, 6)$
$(1, 0, 0, 0, 0, -1, -1, -1, -1)$	$\lambda_2 - \lambda_4 - \lambda_6 - \lambda_8 - \lambda_9 \geq 0$	$(1, 0, 2, 4, 6, 3, 5, 7, 8)$
	$\lambda_1 - \lambda_4 - \lambda_5 - \lambda_8 - \lambda_9 \geq 0$	$(0, 1, 2, 5, 6, 3, 4, 7, 8)$
	$\lambda_5 - \lambda_6 - \lambda_7 - \lambda_8 - \lambda_9 \geq 0$	$(4, 0, 1, 2, 3, 5, 6, 7, 8)$
	$\lambda_1 - \lambda_3 - \lambda_6 - \lambda_8 - \lambda_9 \geq 0$	$(0, 1, 3, 4, 6, 2, 5, 7, 8)$
	$\lambda_1 - \lambda_4 - \lambda_6 - \lambda_7 - \lambda_9 \geq 0$	$(0, 1, 2, 4, 7, 3, 5, 6, 8)$
	$\lambda_3 - \lambda_4 - \lambda_7 - \lambda_8 - \lambda_9 \geq 0$	$(2, 0, 1, 4, 5, 3, 6, 7, 8)$
	$\lambda_1 - \lambda_2 - \lambda_7 - \lambda_8 - \lambda_9 \geq 0$	$(0, 2, 3, 4, 5, 1, 6, 7, 8)$
$(3, 1, 1, -1, -1, -1, -3, -3, -5)$	$3\lambda_1 + \lambda_2 - 3\lambda_3 - 3\lambda_4 - \lambda_5 - \lambda_6 + \lambda_7 - 5\lambda_8 - \lambda_9 \geq 0$	$(0, 1, 6, 4, 5, 8, 2, 3, 7)$
	$-\lambda_1 + \lambda_2 + \lambda_3 - \lambda_4 + 3\lambda_5 - 5\lambda_6 - 3\lambda_7 - 3\lambda_8 - \lambda_9 \geq 0$	$(4, 1, 2, 0, 3, 8, 6, 7, 5)$
	$3\lambda_1 + \lambda_2 + \lambda_3 - 5\lambda_4 - 3\lambda_5 - 3\lambda_6 - \lambda_7 - \lambda_8 - \lambda_9 \geq 0$	$(0, 1, 2, 6, 7, 8, 4, 5, 3)$
	$\lambda_1 - \lambda_2 - \lambda_3 + \lambda_4 + 3\lambda_5 - 5\lambda_6 - 3\lambda_7 - 3\lambda_8 - \lambda_9 \geq 0$	$(4, 0, 3, 1, 2, 8, 6, 7, 5)$
$(0, 0, 0, 0, 0, 0, 0, 0, -1)$	$-\lambda_9 \geq 0$	$(0, 1, 2, 3, 4, 5, 6, 7, 8)$
$(7, 3, -1, -1, -1, -5, -5, -9, -9)$	$3\lambda_1 + 7\lambda_2 - \lambda_3 - 9\lambda_4 - \lambda_5 - 9\lambda_6 - 5\lambda_7 - 5\lambda_8 - \lambda_9 \geq 0$	$(1, 0, 2, 4, 8, 6, 7, 3, 5)$
	$7\lambda_1 - \lambda_2 + 3\lambda_3 - 9\lambda_4 - 5\lambda_5 - \lambda_6 - 9\lambda_7 - 5\lambda_8 - \lambda_9 \geq 0$	$(0, 2, 1, 5, 8, 4, 7, 3, 6)$
	$7\lambda_1 - 5\lambda_2 - \lambda_3 - \lambda_4 + 3\lambda_5 - 9\lambda_6 - 5\lambda_7 - 9\lambda_8 - \lambda_9 \geq 0$	$(0, 4, 2, 3, 8, 1, 6, 5, 7)$
	$3\lambda_1 + 7\lambda_2 - 5\lambda_3 - 5\lambda_4 - \lambda_5 - 9\lambda_6 - \lambda_7 - 9\lambda_8 - \lambda_9 \geq 0$	$(1, 0, 4, 6, 8, 2, 3, 5, 7)$
	$3\lambda_1 + 7\lambda_2 - \lambda_3 - 9\lambda_4 - 5\lambda_5 - 5\lambda_6 - \lambda_7 - 9\lambda_8 - \lambda_9 \geq 0$	$(1, 0, 2, 6, 8, 4, 5, 3, 7)$
	$7\lambda_1 - \lambda_2 - 5\lambda_3 - \lambda_4 + 3\lambda_5 - 9\lambda_6 - 9\lambda_7 - 5\lambda_8 - \lambda_9 \geq 0$	$(0, 4, 1, 3, 8, 2, 7, 5, 6)$
	$7\lambda_1 - \lambda_2 + 3\lambda_3 - 9\lambda_4 - \lambda_5 - 9\lambda_6 - 5\lambda_7 - 5\lambda_8 - \lambda_9 \geq 0$	$(0, 2, 1, 4, 8, 6, 7, 3, 5)$
$(3, 3, -1, -1, -1, -1, -5, -5, -5)$	$3\lambda_1 - \lambda_2 - \lambda_3 - \lambda_4 + 3\lambda_5 - 5\lambda_6 - 5\lambda_7 - 5\lambda_8 - \lambda_9 \geq 0$	$(0, 4, 1, 2, 3, 8, 5, 6, 7)$

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