Structure constants of the Lie Algebra:

$$(1 \cdot 23, -1 \cdot 36, 1 \cdot 26, 1 \cdot 26 - 1 \cdot 56, 1 \cdot 361 \cdot 46, 0 \cdot 0,).$$

Symplectic form

$$\omega = (-2)e^{16} + (-1)e^{25} + e^{34}$$

Derivatives of 3-forms

$$d(e^{123}) = (-1)e^{1346} + e^{1356}$$

$$d(e^{124}) = e^{1456}$$

$$d(e^{125}) = e^{1456}$$

$$d(e^{134}) = 2e^{2346}$$

$$d(e^{135}) = 2e^{2356}$$

$$d(e^{145}) = e^{2345} + 2e^{2456}$$

$$d(e^{146}) = e^{2346}$$

$$d(e^{156}) = e^{2356}$$

$$d(e^{234}) = (-1)e^{3456}$$

$$d(e^{235}) = (-1)e^{3456}$$

Derivatives of 2-forms

$$d(e^{12}) = (-1)e^{146} + e^{156}$$

$$d(e^{13}) = (-2)e^{236}$$

$$d(e^{14}) = e^{234} + (-2)e^{246}$$

$$d(e^{15}) = e^{235} + (-2)e^{256}$$

$$d(e^{16}) = e^{236}$$

$$d(e^{23}) = e^{346} + (-1)e^{356}$$

$$d(e^{24}) = (-1)e^{456}$$

$$d(e^{25}) = (-1)e^{456}$$

$d\Lambda d$ of 3-forms

$$d\Lambda d(e^{123}) = (-1)e^{236}$$

$$d\Lambda d(e^{145}) = (-1)e^{456}$$