Structure constants of the Lie Algebra:

Symplectic form

$$\omega = 1 \cdot e^{35} + 1 \cdot e^{41} + -1 \cdot e^{62} +$$

Derivatives

$$d(e^{246}) = (-1)e^{1234}$$

$$d(e^{256}) = (-1)e^{1235}$$

$$d(e^{345}) = e^{1234}$$

$$d(e^{356}) = (-1)e^{1236}$$

$$d(e^{456}) = (-1)e^{1246} + e^{1345}$$

$$d(e^{26}) = e^{123}$$

$$d(e^{35}) = (-1)e^{123}$$

$$d(e^{45}) = (-1)e^{124}$$

$$d(e^{46}) = (-1)e^{134}$$

$$d(e^{56}) = e^{126} + (-1)e^{135}$$

$$d\Lambda d(e^{456}) = (-2)e^{123}$$