The Spectral Perspective

$$\overbrace{a_{ij}a_{ik}a_{jk} - a_{jk}a_{ik}a_{ij}}^{Y_{ijk}} + \underbrace{[a_{ij},a_{ik}] + [a_{ij},a_{jk}] + [a_{ik},a_{jk}]}_{Y_{ijk}} = 0$$

$$C^{ij}_{k\ell} \longleftrightarrow [a_{ij}, a_{k\ell}]$$

$$\mathcal{D}: FA\left(\underbrace{a_{ij}}_{\substack{\text{height } 0 \\ \text{deg } 1}}, \underbrace{\eta_{ijk}, \gamma^{ij}_{k\ell}}_{\substack{1 \\ 2/\text{indefinite}}}\right) \qquad \mathcal{D}_0 : \text{height } 0$$

$$\mathcal{D}_1 : \text{height } 1$$

$$\partial : \mathcal{D}_1 \longrightarrow \mathcal{D}_0 \quad \text{by} \quad (\eta, \gamma) \longmapsto (Y, C)$$

$$\partial^0 : \mathcal{D}_1 \longrightarrow \mathcal{D}_0 \quad \text{by} \quad (\eta, \gamma) \longmapsto (y, C)$$

Do these have the same rank?