$$S_\ell^{\mathbb{C}} = \begin{cases} z \in B \\ \operatorname{rk} z \leqslant \ell \end{cases} = \bigcup_u^{S_\ell} B_u^1 = \bigcup_v^{S_{r-\ell}} B_v^0$$

$$\curlywedge \underset{\ell}{\bigstar} \curlywedge = \int_{du}^{S_\ell} {}^{B_u^1\widehat{\curlywedge}} \underset{B_u^1}{\overset{\nu}{\bigstar}} \underbrace{T_u^{1B_u^1\widehat{\curlywedge}}} = \int_{dv}^{S_{r-\ell}} {}^{B_v^0\widehat{\curlywedge}} \underset{B_v^0}{\overset{\nu}{\bigstar}} \underbrace{T_v^{0B_v^0\widehat{\curlywedge}}}$$

$$u \in S \Longrightarrow z \in S_\ell^{\mathbb{C}} \xrightarrow[\text{invol}]{()^u} S_\ell^{\mathbb{C}} \ni z^u = u \overset{*}{z} u$$