

$$\mathbb{K} \underset{\infty}{\nabla} \mathfrak{h}^{p/q} = \mathbb{C} | \mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K} = \frac{\mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K} \xleftarrow{\mathfrak{b}} \mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K}}{\text{lin } \mathbb{K}}$$

$$\mathfrak{b} \mathfrak{r} \mathfrak{r} = \mathfrak{b} \mathfrak{r} \mathfrak{r} + -1 \mathfrak{r} \mathfrak{b} \mathfrak{r}$$

$$\mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K} \text{ mod } \langle \mathfrak{b} \mathfrak{r} \mathfrak{r} \rangle = \langle \mathfrak{b} \mathfrak{r} \mathfrak{r} \rangle$$

$$\mathbb{K} \underset{\infty}{\nabla} \mathfrak{h}^{p/q} \quad \ni \quad \mathfrak{b} = \mathfrak{b} \mathfrak{r}^i \frac{\partial}{\partial \mathfrak{r}^i} + \mathfrak{b} \mathfrak{r}^k \frac{\partial}{\partial \mathfrak{r}^k}$$

$$\begin{array}{c} \mathbb{K} \underset{\infty}{\nabla} \mathfrak{h}^{p/q} \\ \downarrow \mathfrak{r}^i | \mathfrak{r}^k \\ \overbrace{\mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K}}^{p:q} \end{array}$$

 \ni

$$\mathfrak{b} \mathfrak{r}^i | \mathfrak{b} \mathfrak{r}^k$$

$$\underbrace{\mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K}} \nabla \overbrace{\mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K}} = \mathbb{K} \underset{\infty}{\nabla} \mathfrak{h}^{p/q} = \mathfrak{h}^{p/q} \underset{\infty}{\Delta} \mathbb{K} \langle \frac{\partial}{\partial \mathfrak{r}^i} ; \frac{\partial}{\partial \mathfrak{r}^k} \rangle$$

$$\mathfrak{b} \cdot \mathcal{J}^{k+1} \subset \mathcal{J}^k$$

Ind $0 \leq k$

$k = 0$ klar

$0 \leq k \rightsquigarrow j + 1$

$$\mathcal{J}^{k+2} \ni \eta = \eta_\alpha \eta^\alpha : \eta_\alpha \in \mathcal{J}^{k+1} : \eta^\alpha \in \mathcal{J}$$

$$\Rightarrow \mathfrak{b} \eta = \underbrace{\mathfrak{b} \eta_\alpha}_{\in \mathcal{J}^k} \underbrace{\eta^\alpha}_{\in \mathcal{J}} + \underbrace{|\mathfrak{b}| \eta^\alpha}_{-1} \underbrace{\eta_\alpha}_{\in \mathcal{J}^{k+1}} \in \mathcal{J}^{k+1}$$

$$\mathfrak{b} = \sum_i \mathfrak{b} \eta^i \frac{\partial}{\partial \eta^i} + \sum_k \mathfrak{b} \eta^k \frac{\partial}{\partial \eta^k}$$

$$\mathfrak{b} := \mathfrak{b} - \sum_i \mathfrak{b} \eta^i \frac{\partial}{\partial \eta^i} - \sum_k \mathfrak{b} \eta^k \frac{\partial}{\partial \eta^k} \in \underbrace{\mathbb{H}^{p/q}}_{\mathbb{K}} \overline{\mathbb{H}^{p/q}}_{\mathbb{K}}$$

$$\mathfrak{b} \eta^i = 0 = \mathfrak{b} \eta^k \Rightarrow \mathfrak{b} \eta^M \overline{\eta - \mathcal{J}}^\mu = 0$$

$$\eta = \eta^I \underbrace{\sum_{|\mu| \leq n+1} \overline{\eta - \mathcal{J}}^{\times \circ} \cdot \eta_{\mu-I} \tilde{\eta}}_{\in \mathcal{J}^{n+2}} + \sum_{|\mu| = n+2} \overline{\eta - \mathcal{J}}^{\times} \eta_I \tilde{\eta}_\mu$$

$$\eta^I \sum_{|\mu| = n+2} \overline{\eta - \mathcal{J}}^{\times} \eta_I \tilde{\eta}_\mu \in \mathcal{J}^{n+2}$$

$$\Rightarrow \mathfrak{b} \eta = \underbrace{\mathfrak{b} \eta^I \sum_{|\mu| \leq n+1} \overline{\eta - \mathcal{J}}^{\times \circ} \cdot \eta_{\mu-I} \tilde{\eta}}_{=0} + \underbrace{\mathfrak{b} \eta^I \sum_{|\mu| = n+2} \overline{\eta - \mathcal{J}}^{\times} \eta_I \tilde{\eta}_\mu}_{=0} = 0$$