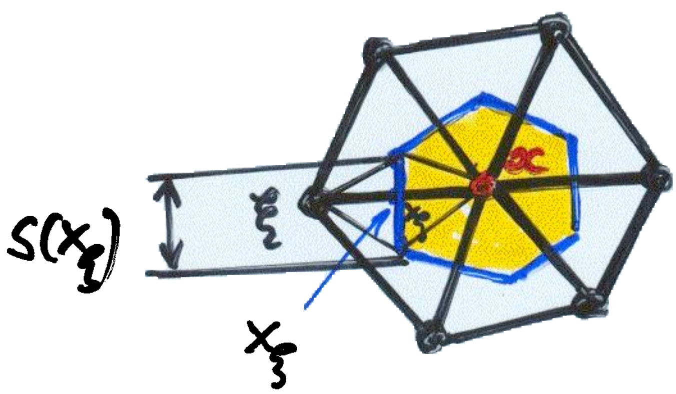
Let us estimate, for instance,

1) $|(\psi_a, z)| \le \dots,$

For simplicity, we assume $a = \bar{a} = 1$. Then

$$(\psi_a, z) = \sum_{x\in\omega}{}' \, \psi_a(x)\, z(x)\, H(x) =$$

$$= \sum_{x\in\omega} \left\{ \sum_{\xi\in S'(x)} \left[-\frac{u(\xi)-u(x)}{h(x,\xi)}\, s(x_\xi) + \int_{\gamma(x,\xi)} \frac{\partial u}{\partial n}\, ds \right] \right\} z(x)$$



$$\partial \mathcal{R}(x) = \bigcup_{\xi\in S'(x)} \gamma(x_\xi)$$

$$= \sum_{x_\xi} \underbrace{\left[\frac{1}{s(x_\xi)} \int_{s(x_\xi)} \frac{\partial u}{\partial n}\, ds - \frac{u(\xi)-u(x)}{h(x,\xi)} \right]}_{=:\ \varkappa(x_\xi)} \underbrace{\frac{z(\xi)-z(x)}{h(x,\xi)}}_{=:\ z_{\bar{x}}(x_\xi)} \overbrace{h(x_\xi)\, s(x_\xi)}^{=H'(x)}$$

$$= \sum_{x_\xi} \varkappa(x_\xi)\, z_{\bar{x}}(x_\xi)\, H'(x_\xi)$$

$$\Rightarrow |(\psi_a, z)| \le \sqrt{\sum_{x_\xi}{}' \varkappa^2(x_\xi) H'(x_\xi)}\ \sqrt{\sum_{x_\xi}{}' z_{\bar{x}}^2(x_\xi) H'(x_\xi)}$$

$$\le \sqrt{\sum_{x_\xi} \varkappa^2(x_\xi) H'(x_\xi)}\ \|z\|_{W_2^1(\omega)}$$

Bramble-Hilbert

$$\le c\, h\, |u|_{2,\Omega}\, \|z\|_{W_2^1(\omega)}$$

$$= c_A(u)\, h\, \|z\|_{W_2^1(\omega)}$$