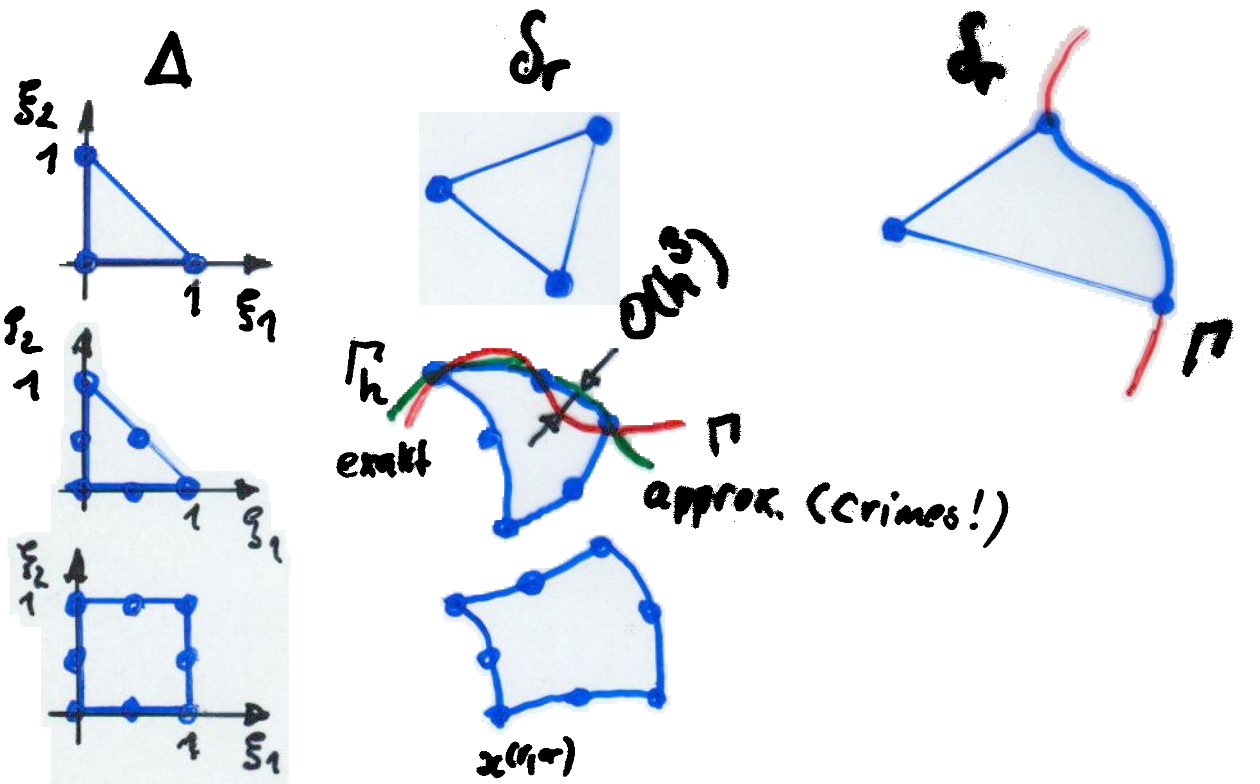
Bemerkung 2.7:

1. Falls $x_{\delta_r}(\cdot) \in \mathcal{F}(\Delta) \supset \mathcal{P}_k$ oder $x_{\delta_r}(\cdot) \in C^{k+1}(\bar{\Delta})$



$$x_{\delta_r}(\xi) = \sum_{\alpha \in A} x^{(r,\alpha)} p^{(\alpha)}(\xi)$$

isoparametrische Technik	allgem. Krumml. Technik

$$(22) \quad \left| \frac{\partial^{|\beta|} x_{\delta_r i}(\xi)}{\partial \xi^{\beta}} \right| \le \bar{c}_2 h^{|\beta|} \quad \forall \beta : |\beta| \le k+1$$

$$\forall \xi \in \bar{\Delta},\ \forall i = \overline{1,d},\ \forall r \in R_h\ \forall h \in \Theta$$

dann gilt (vgl. (21) Beweisschritt 4!):

$$(18') \quad \inf_{v_h \in \bar{V}_h} |u - v_h|_{s,\Omega} \le a_{s,k+1} h^{k+1-s} \|u\|_{k+1,\Omega},$$

bzw. $\inf_{v_h \in \bar{V}_h} |u - v_h|_{s,\Omega} \le a_{s,k+1} h^{k+1-s} \left(\sum_{r \in R_h} \|u\|^2_{k+1,\delta_r} \right)^{1/2}.$