

Folie 17

Algorithmus: Berechnung $K^{(i)}$, $f^{(i)}$ und Acc. zu \hat{K}_h, \hat{f}_h :

Initiate: $\hat{f}_h := \mathbb{0}$, $\hat{K}_h := \mathbb{0}$

FOR $e := 1$ STEP 1 UNTIL n DO

FOR $\alpha := 1$ STEP 1 UNTIL 2 DO

BEGIN

* compute $f_\alpha^{(e)}$;

* determine $i := i(e, \alpha)$;

* update $\hat{f}_i := \hat{f}_i + f_\alpha^{(e)}$;

FOR $\beta := 1$ STEP 1 UNTIL 2 DO

BEGIN

* compute $K_{\alpha\beta}^{(e)}$;

* determine $j := j(e, \beta)$;

* update $\hat{K}_{ij} := \hat{K}_{ij} + K_{\alpha\beta}^{(e)}$;

END

END FOR

END

ENDFOR

ENDFOR

$\Rightarrow \hat{f}_h, \hat{K}_h$ (ohne RB!!!)

$$f_\alpha^{(e)} := f(x_e - \frac{h}{2}) \frac{h}{2}, \quad \alpha = 1, 2$$

$$K_{11}^{(e)} := \frac{1}{h}, \quad K_{22}^{(e)} := \frac{1}{h} = \underbrace{\lambda(x_e - \frac{h}{2})}_{=1} \underbrace{\varphi_1'(x_e - \frac{h}{2})}_{=1/h} \underbrace{\varphi_2'(x_e - \frac{h}{2})}_{=1/h} h$$

$$K_{12}^{(e)} := -\frac{1}{h}, \quad K_{21}^{(e)} := -\frac{1}{h}$$