

DIFERENCNI POSTUPAK

-pravougaone ploce-

$$DJ: \frac{d^4 w}{dx^4} + 2 \frac{d^4 w}{dx^2 dy^2} + \frac{d^4 w}{dy^4} = \frac{z(x, y)}{K}$$

$$\left(\frac{dw}{dx} \right)_k \approx \frac{w_{k+1} - w_{k-1}}{2Sx}$$

$$\left(\frac{d^2 w}{dx^2} \right)_k \approx \frac{w_{k+1} - 2w_k + w_{k-1}}{Sx^2}$$

$$\left(\frac{d^3 w}{dx^3} \right)_k \approx \frac{w_{k+2} - 2w_{k+1} + 2w_{k-1} - w_{k-2}}{2Sx^3}$$

$$\left(\frac{d^4 w}{dx^4} \right)_k \approx \frac{w_{k+2} - 4w_{k+1} + 6w_k - 4w_{k-1} + w_{k-2}}{Sx^4}$$

$$\left(\frac{dw}{dy} \right)_k \approx \frac{w_l - w_i}{2Sy}$$

$$\left(\frac{d^2 w}{dy^2} \right)_k \approx \frac{w_l - 2w_k + w_i}{Sy^2}$$

$$\left(\frac{d^3 w}{dy^3} \right)_k \approx \frac{w_m - 2w_l + 2w_i - w_h}{2Sy^3}$$

$$\left(\frac{d^4 w}{dy^4} \right)_k \approx \frac{w_m - 4w_l + 6w_k - 4w_i + w_h}{Sy^4}$$

$$\left(\frac{d^2 w}{dx dy} \right)_k \approx \frac{w_{l+1} - w_{l-1} - w_{i+1} + w_{i-1}}{4SxSy}$$

$$\left(\frac{d^3 w}{dx^2 dy} \right)_k \approx \frac{w_{l+1} - 2w_l + w_{l-1} - w_{i+1} + 2w_i + w_{i-1}}{2Sx^2 Sy}$$

$$\left(\frac{d^3 w}{dx dy^2} \right)_k \approx \frac{w_{l+1} - 2w_{k+1} + w_{i+1} - w_{l-1} + 2w_{k-1} - w_{i-1}}{2Sy^2 Sx}$$

$$\left(\frac{d^4 w}{dx^2 dy^2} \right)_k \approx \frac{4w_k - 2(w_l + w_i + w_{k+1} + w_{k-1}) + w_{l+1} + w_{l-1} + w_{i+1} + w_{i-1}}{Sx^2 Sy^2}$$

shema koeficijenata

