- **Algorithmus 6.22: Wielandt**

Sei $\bar{\lambda}$ Näherung an EW λ_i
Wähle Startvektor $q^{(0)} \in \mathbb{C}^n$ (random)
FOR $k=0$ STEP 1 UNTIL "Convergence" DO
$(A-\bar{\lambda}I)\, z^{(k+1)} = q^{(k)}$ (GS lösen)
$q^{(k+1)} = z^{(k+1)} / \| z^{(k+1)} \|$
ENDFOR

- **EW-Berechnung:**

$$\lambda_i^{(k)} = \frac{(A q^{(k)}, q^{(k)})}{(q^{(k)}, q^{(k)})} = (A q^{(k)}, q^{(k)}) \xrightarrow{k \to \infty} \lambda_i$$

- **Variable Shift-Idee!**

$$\bar{\lambda}^{(0)} = \bar{\lambda}$$
$$\bar{\lambda}^{(k)} = \lambda_i^{(k)} = (A q^{(k)}, q^{(k)})$$
$$(A - \bar{\lambda}^{(k)} I)\, z^{(k+1)} = q^{(k)}$$