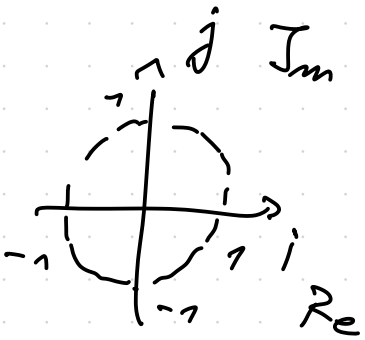
Stabilitatea în timp discret

$$\Delta(z) = a_n z^n + \dots + a_0 = 0$$



$$|z_\nu| < 1 \qquad \nu = 1 \dots n$$

Suficient

$z_\nu = 1$ → iesirea liniar crescătoare

$z_\nu = -1$ → oscilantă

Sample Time pt Matlab (Discrete Transf. Fcn)

Modelling → Model Explorer

$\Delta(z)$ → $z = \frac{1+\lambda}{1-\lambda}$ sau $\frac{1-w}{1+w}$

→ apl. ca în timp continuu + Hurwitz

$H(\lambda)$ / $H(w)$

→ sau Crit. Jury

$\Delta(z) = z^3 + 3z^2 + 4z + 9,5$

$z = \frac{\lambda+1}{\lambda-1}$

$\Delta(\lambda) = - - - -$

$$\Delta(\lambda) = \frac{(\lambda+1)^3 + 3\cdot(\lambda+1)^2(\lambda-1) + 4\cdot(\lambda+1)(\lambda-1)^2 + 9,5\,(\lambda-1)^3}{(\lambda-1)^3}$$

Temă: 5, 6, 7 lab 3

↓ + Transf. Conformă + Simulink

Jury
Toate