Kernkompetenz – Bodeplots zeichnen

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Zeichnen Sie jeweils den Bode-Plot der folgenden Übertragungsfunktionen $H(s)$.

(a) $H(s) = \frac{1}{s+1}$

(b) $H(s) = \frac{10}{s+10}$

(c) $H(s) = \frac{s+1}{s+10}$

(d⋆) $H(s) = \frac{10(1-s)}{s+10}$

(e⋆) $H(s) = \frac{(-1+1j)}{\sqrt{2}(s+1)^2}$

(f) $H(s) = \frac{-1000}{(s+1)(s+100)}$

(g) $H(s) = \frac{\sqrt{2}100s}{s+1}$

(h) $H(s) = \frac{\sqrt{2}10s^2}{s-1}$

(i) $H(s) = \frac{(s+1)}{(s+10)^2}$

(j) $H(s) = \frac{s+1}{s^2+2s+1}$

(k) $H(s) = \frac{100(s+1)}{s^2+20s+100}$

(l) $H(s) = \frac{s^2-100}{(s+1)}$

(m) $H(s) = \frac{\sqrt{202}10s}{(s+1)(s+10)}$

(n⋆) $H(s) = \frac{s(0.1-s)(s+10)}{(s+1)^2}$

(o) $H(s) = \frac{1}{s}$

(p⋆) $H(s) = \frac{100}{(s^2+1s+100)}$

(q⋆⋆) $H(s) = \frac{s^2+4}{s(s^2+10s+100)}$

(r) $H(s) = \frac{s^2+2s+10}{s^2+2s+10}$

(s) $H(s) = \frac{4}{s^2-4}$

(t⋆) $H(s) = \frac{-1000(s+2)^2}{4(s+1)^3(s+10)}$

(u) $H(s) = \frac{2s}{s^2+2s+1}$