clear();

clc();

scf(0);

s = %s;

Omeg = 1;

zeta = 0.25;

G1 = Omeg\*Omeg/(s^2+2\*zeta\*Omeg\*s+Omeg\*Omeg);

P1 = syslin('c',G1);

Peak\_freq1 = freson(P1)

w\_freq1 = 2\*%pi\*Peak\_freq1

Max\_G1 = 20\*log10(abs(horner(G1,%i\*w\_freq1)))

zeta = 0.5;

G2 = Omeg\*Omeg/(s^2+2\*zeta\*Omeg\*s+Omeg\*Omeg);

P2 = syslin('c',G2);

Peak\_freq2 = freson(P2)

w\_freq2 = 2\*%pi\*Peak\_freq2

Max\_G2 = 20\*log10(abs(horner(G2,%i\*w\_freq2)))

zeta = 1.0;

G3 = Omeg\*Omeg/(s^2+2\*zeta\*Omeg\*s+Omeg\*Omeg);

P3 = syslin('c',G3);

Peak\_freq3 = freson(P3)

w\_freq3 = 2\*%pi\*Peak\_freq3

Max\_G3 = 20\*log10(abs(horner(G3,%i\*w\_freq3)))

xset('window',0);

bode([P1;P2;P3]);

disp(Peak\_freq1)

disp(w\_freq1)

disp(Max\_G1)

disp(Peak\_freq2)

disp(w\_freq2)

disp(Max\_G2)

disp(Peak\_freq3)

disp(w\_freq3)

disp(Max\_G3)

xs2png(0, 'kadai6.png')

Chart, line chart

Description automatically generated

Figure 1 zeta=0.25(黒) zeta=0.5(青) zeta=1.0(緑)