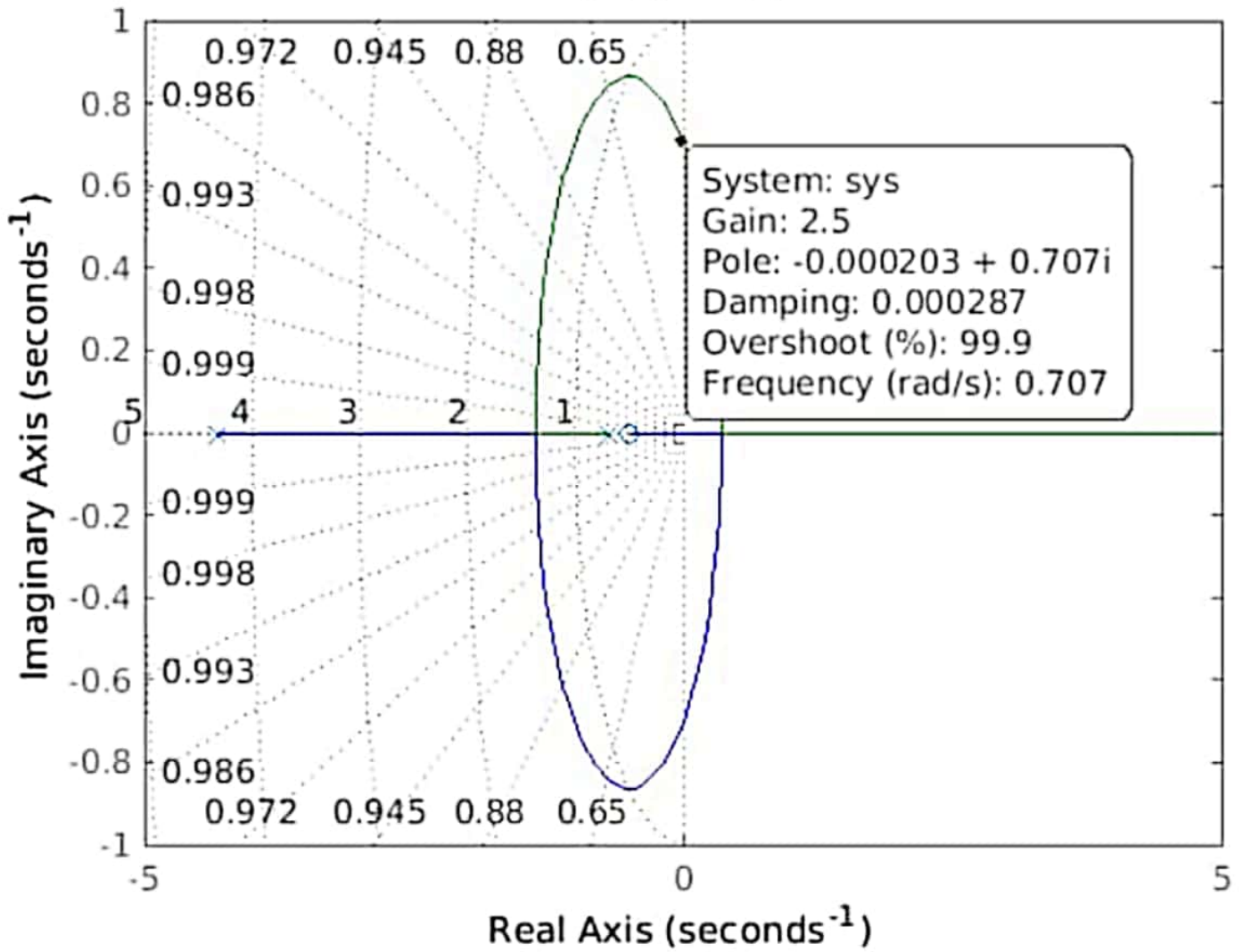


### Root Locus



---

```

% Bode, Nyquist and Root Locus
sys = tf([-2 -1],[1 5 3])
figure(1)
pzmap(sys)
grid
figure(2)
margin(sys)
[Gm,Pm,Wcg,Wcp] = margin(sys)
grid
figure(3)
nyquist(sys)
grid
figure(4)
rlocus(sys)
grid
figure(5)
step(sys)
grid
stepinfo(sys)

```

```
sys =
```

$$\frac{-2s - 1}{s^2 + 5s + 3}$$

*Continuous-time transfer function.*

```
Gm =
```

```
2.5000
```

```
Pm =
```

```
Inf
```

```
Wcg =
```

```
0.7071
```

```
Wcp =
```

```
NaN
```

```
ans =
```

---

struct with fields:

RiseTime: 0.2360  
SettlingTime: 4.5302  
SettlingMin: -0.4075  
SettlingMax: -0.3022  
Overshoot: 22.2557  
Undershoot: 0  
Peak: 0.4075  
PeakTime: 0.8134

