Example 3

$$G(s) = \frac{s-1}{(s+2)(s^2-s+1)} = \frac{s-1}{s^3+s^2-s+2}$$

Open-loop poles:

$$s = -2 \qquad \text{(LHP)}$$

$$s^2 - s + 1 = 0$$

$$\left(s - \frac{1}{2}\right)^2 + \frac{3}{4} = 0$$

$$s = \frac{1}{2} \pm j\frac{\sqrt{3}}{2} \qquad \text{(RHP)}$$

$\therefore$ 2 RHP poles