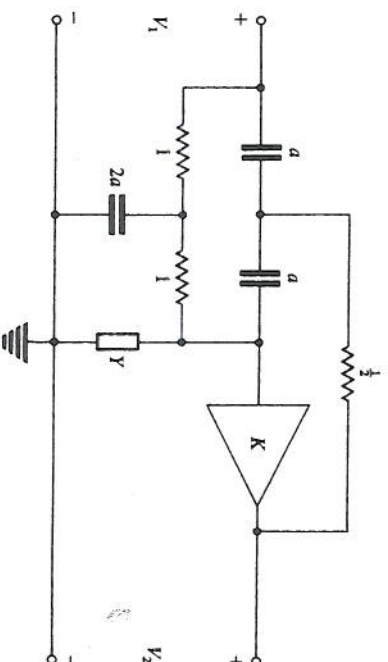


Kerwin Filter

- Sallen-Key filters cannot realize finite imaginary zeros, needed for elliptic or inverse Chebyshev response. Kerwin filter can with $Y = G$ or SC .



$$Y \approx G ;$$

$$A_V(s) = \frac{K(s^2 + a^{-2})}{s^2 + (G + 2 - K)2a^{-1}s + (1 + 2G)a^{-2}}$$

while for $Y = sC$;

$$A_V(s) = \frac{[K/(2C + 1)](s^2 + a^{-2})}{s^2 + [2a^{-1}(C + 2 - K)/(2C + 1)]s + a^{-2}/(2C + 1)}$$

