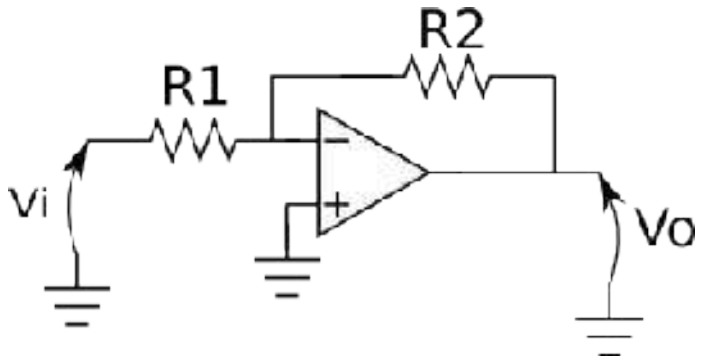
Catalogo dei circuiti con op-amp – Silvio Moioli

Nome: amplificatore invertente

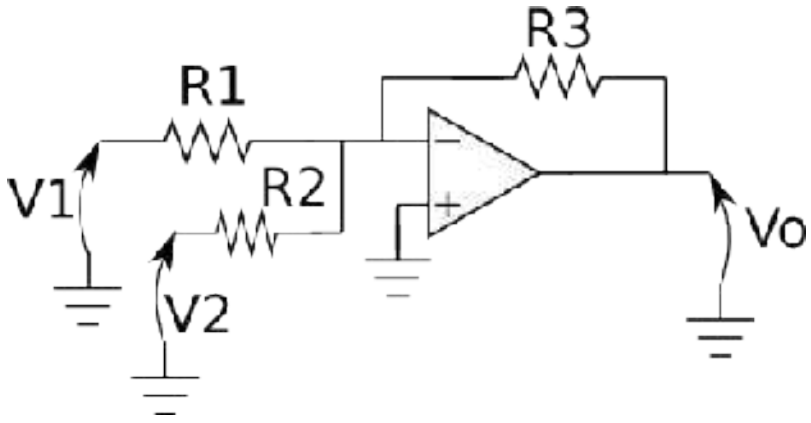
Schema:



Funzione di trasferimento: $G(s) = -\frac{R_2}{R_1}$

Nome: sommatore invertente

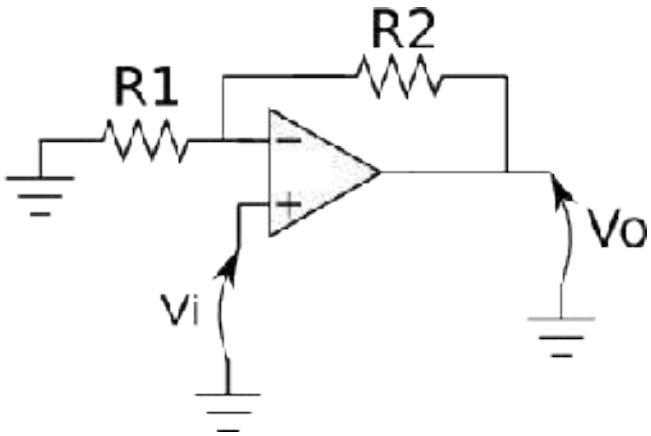
Schema:



Legame ingressi-uscita: $V_o = -R_3\left(\frac{V_1}{R_1} + \frac{V_2}{R_2}\right)$ (dove normalmente R1=R2)

Nome: amplificatore non invertente

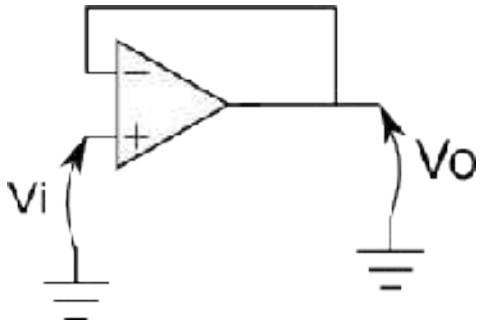
Schema:



Funzione di trasferimento: $G(s)=1+\frac{R_2}{R_1}$

Nome: buffer

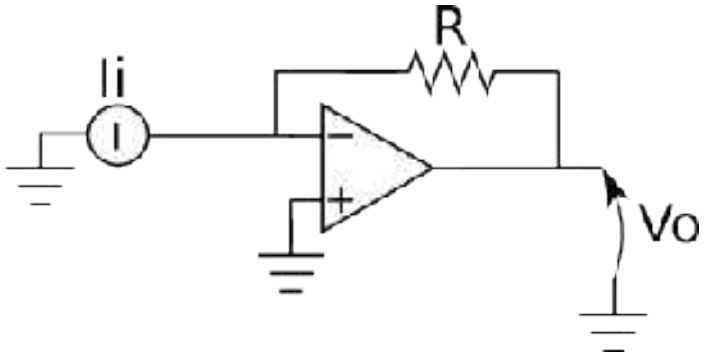
Schema:



Funzione di trasferimento: $G(s)=1$

Nome: amplificatore a transresistenza

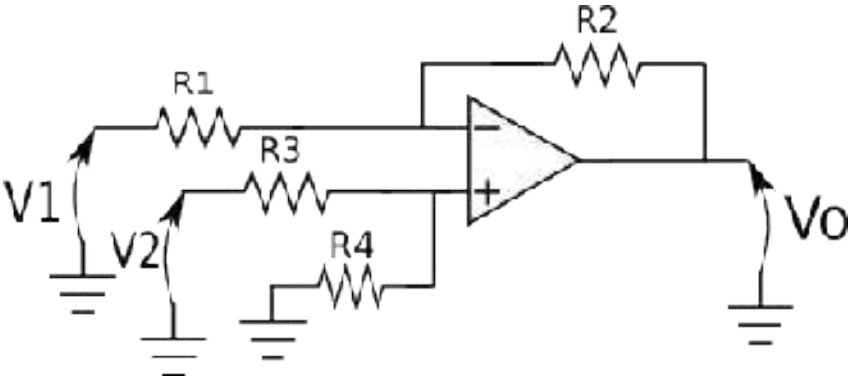
Schema:



Legame ingresso-uscita: $V_o=-\frac{R}{I_i}$

Nome: amplificatore delle differenze

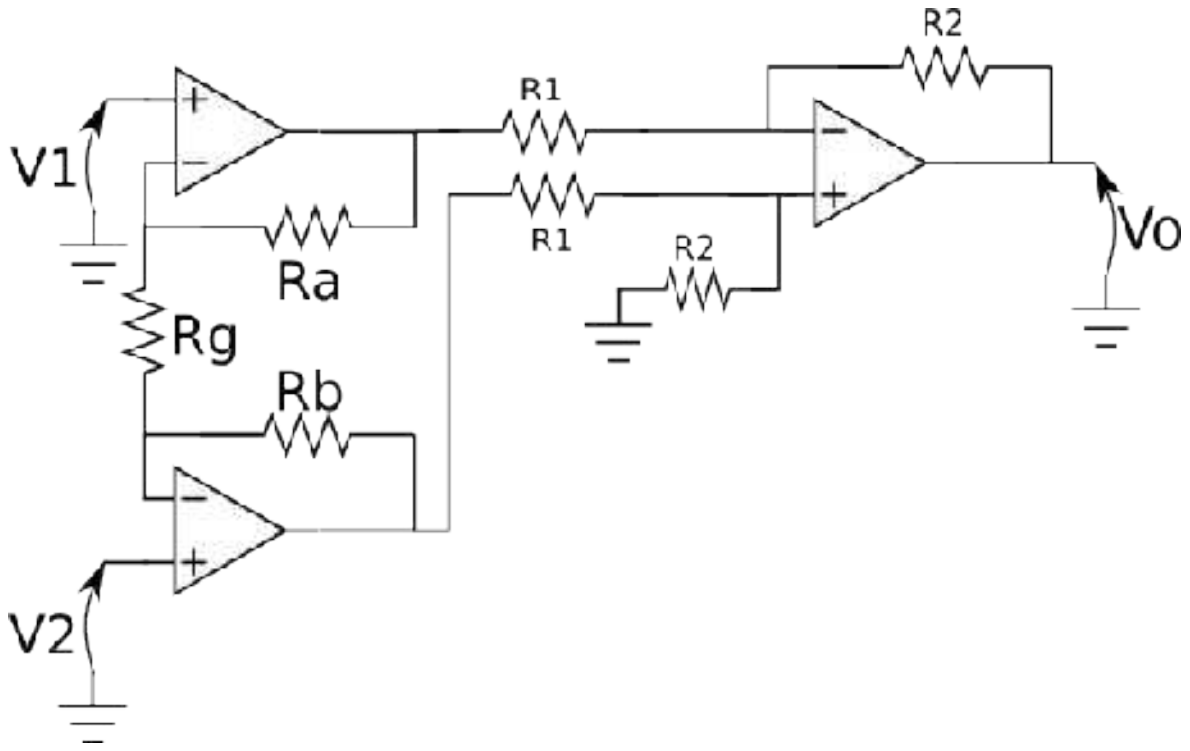
Schema:



Funzione di trasferimento: $V_o=-\frac{R_2}{R_1}V_1+\frac{R_4}{R_1}\frac{R_1+R_2}{R_3+R_4}V_2$ (dove normalmente R1=R2 e R3=R4)

Nome: amplificatore per strumentazione

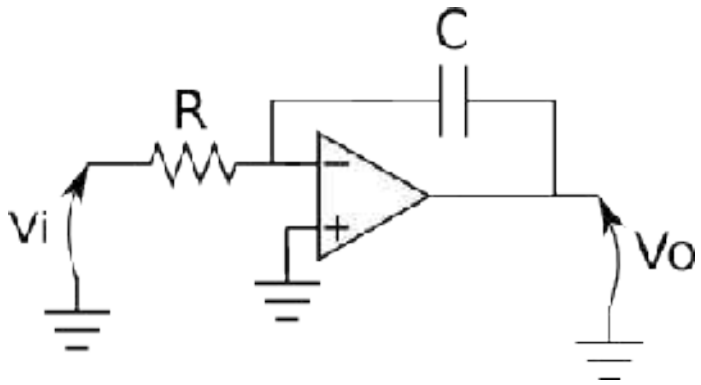
Schema:



Legame ingressi-uscita: $V_o = \frac{R_2}{R_1}(1 + \frac{2R}{R_g})(V_2 - V_1)$

Nome: integratore puro

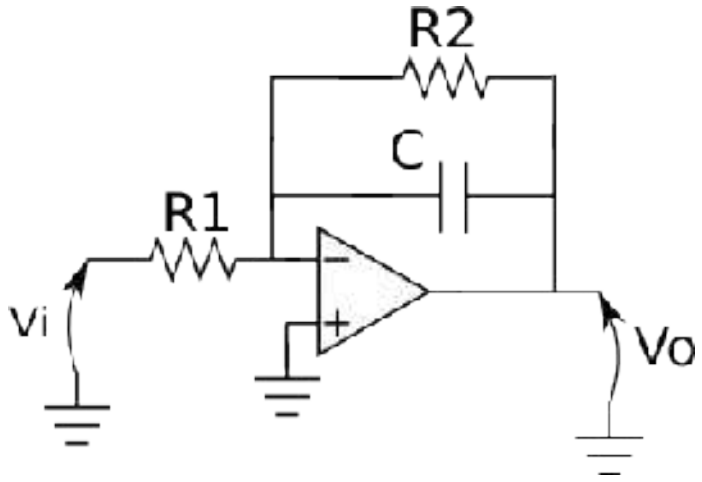
Schema:



Funzione di trasferimento: $G(s) = -\frac{1}{sRC}$

Nome: integratore approssimato

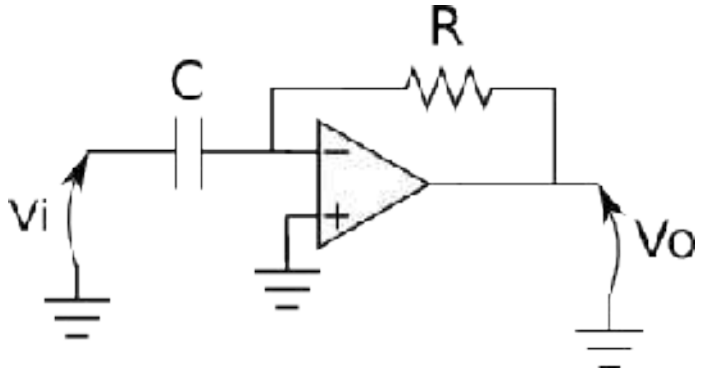
Schema:



Funzione di trasferimento: $G(s)=\frac{R_2}{sR_2C+1}$

Nome: derivatore puro

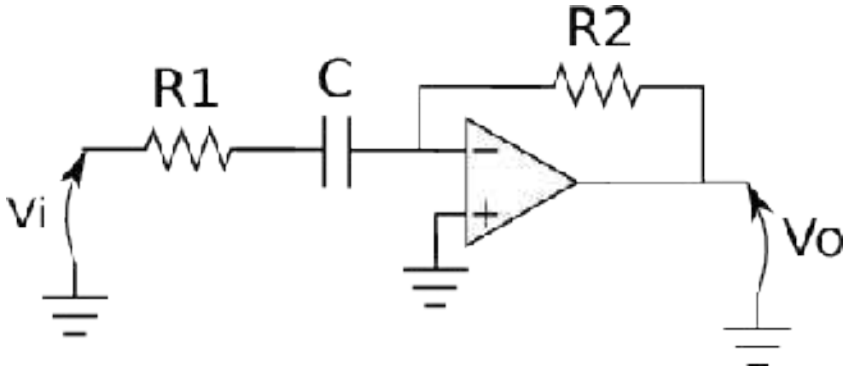
Schema:



Funzione di trasferimento: $G(s)=-\ sRC$

Nome: derivatore approssimato

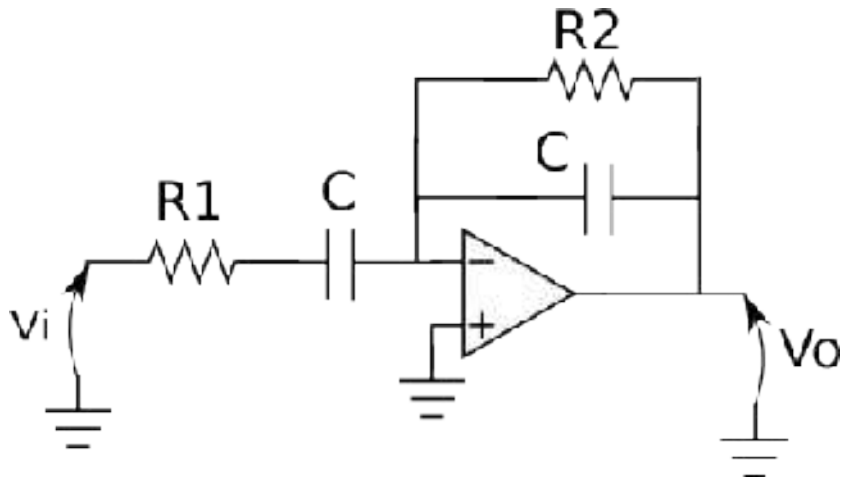
Schema:



Funzione di trasferimento: $G(s)=\frac{sR_1C}{1+sR_1C}$

Nome: filtro passa-banda attivo

Schema:



Funzione di trasferimento: $G(s) = -\frac{R_2}{R_1}\frac{s R_1 C_1}{(1+sR_1C_1)(1+sR_2C_2)}$