

Calcul d'Erreur sur N_2

$$N_1 V_1 = N_2 V_2$$

$$N_2 = \frac{N_1 V_1}{V_2} \Rightarrow \ln N_2 = \ln N_1 + \ln V_1 - \ln V_2$$

$$\Rightarrow \frac{dN_2}{N_2} = \frac{dN_1}{N_1} + \frac{dV_1}{V_1} - \frac{dV_2}{V_2}$$

$$\Rightarrow \frac{dN_2}{N_2} = \frac{dN_1}{N_1} + \frac{dV_1(I) + dV_1(F)}{V_1} - \left[\frac{dV_2(I) + dV_2(F)}{V_2} \right]$$

$$\Rightarrow \frac{\Delta N_2}{N_2} = \frac{\Delta N_1}{N_1} + \frac{\Delta V_1(I)}{V_1} + \frac{\Delta V_2(I)}{V_2} + \left| \frac{\Delta V_1(F)}{V_1} - \frac{\Delta V_2(F)}{V_2} \right|$$