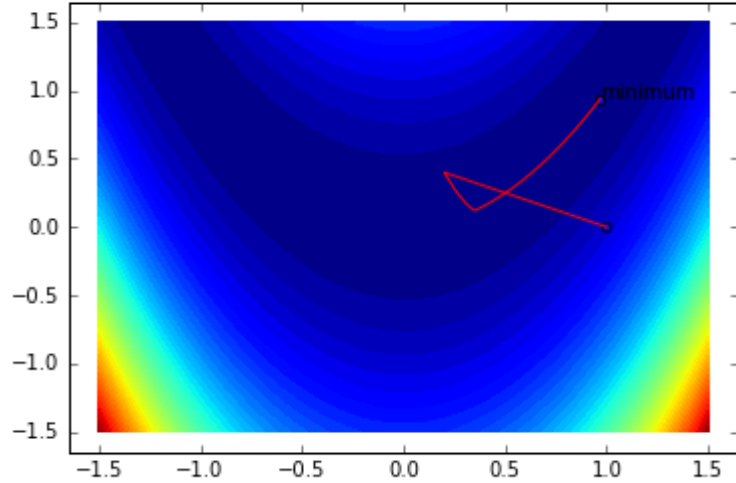


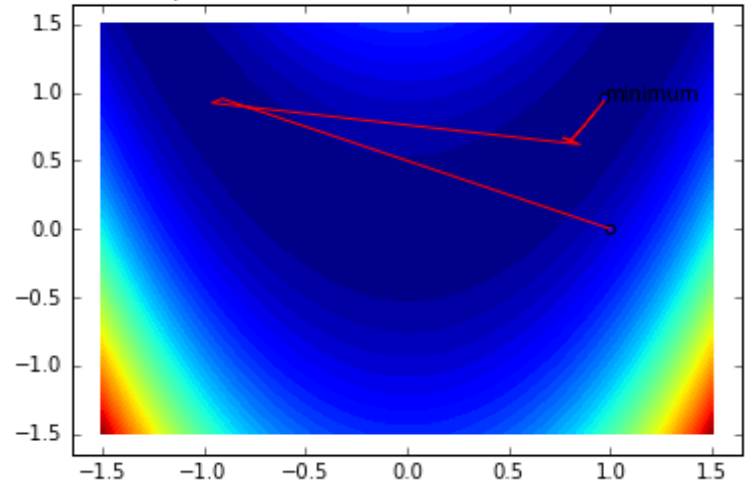
Annexe 1 : Méthodes de gradient

Gradient pas constant pour $p=0.002$. 2765 itérations.

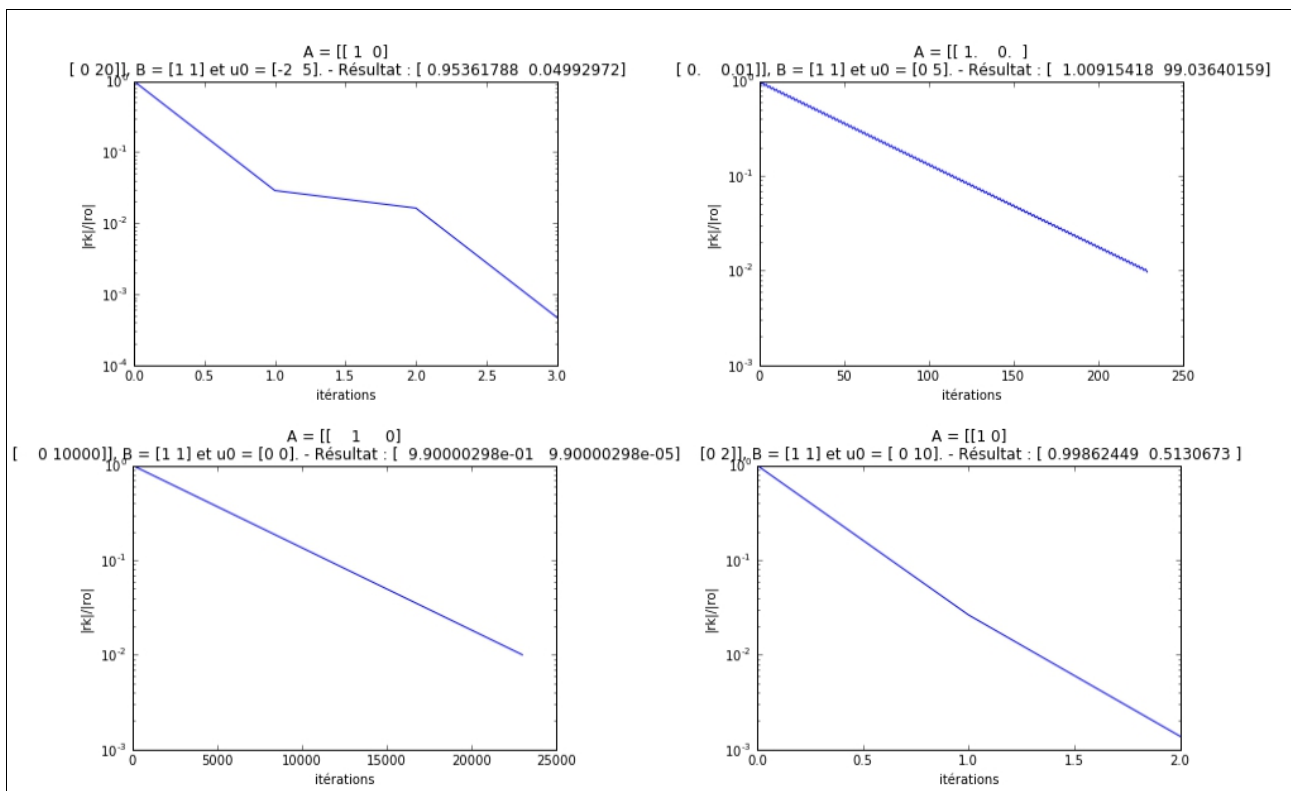


Graph1: Gradient à pas constant

procédé de dichotomie : 937 itérations

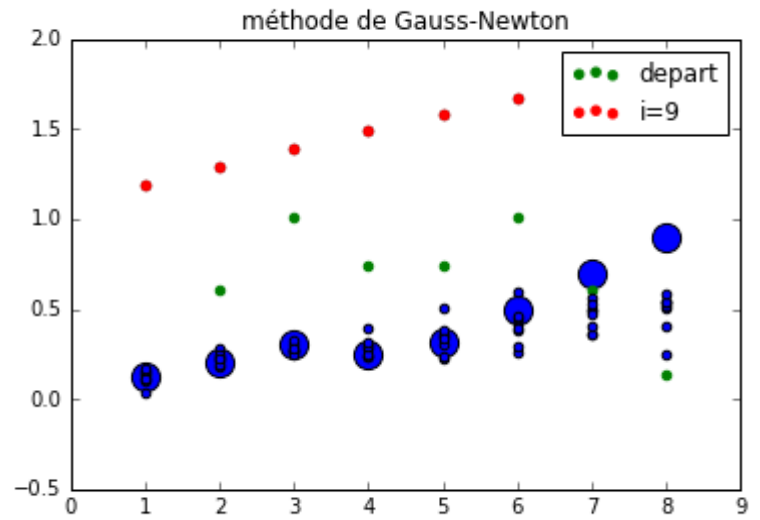
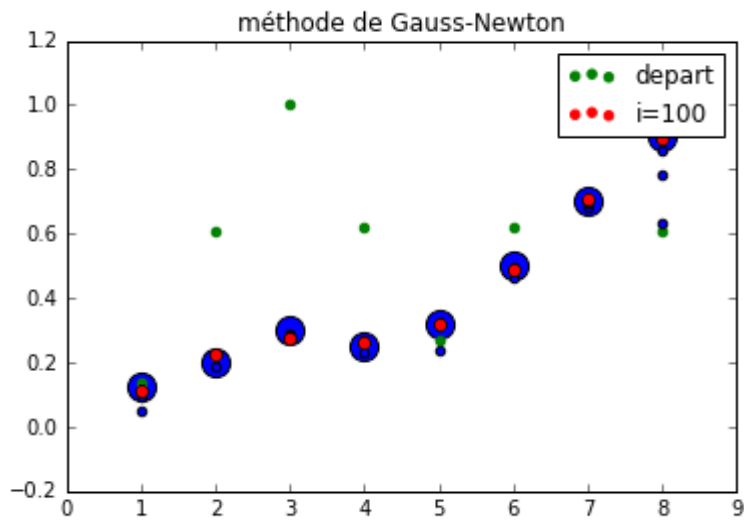


Graph3 : procédé dichotomique



Graph 2 : Gradient optimal

Annexe 2 : Méthode de Gauss-Newton



Annexe 3 : Applications

