

Contents

- [ARMIJO Introduction](#)

```
function boolean = armijo(q_eval, q_grad, p_k, a_k, c1)
```

ARMIJO Introduction

Returns true if Armijo conditio is met, returns false if the Armijo condition is not met.

q_eval: function handle with respect to alpha for
 q_eval(alpha) = f_eval(x_k + alpha * p_k)

q_grad: function handle with respect to alpha for
 q_grad(alpha) = f_grad(x_k + alpha * p_k)

a_k: current estimate for alpha

c1: given parameter

```
if q_eval(a_k) <= (q_eval(0) + c1*a_k*p_k'*q_grad(0))  
    boolean = 1;  
else  
    boolean = 0;  
end  
  
end
```

