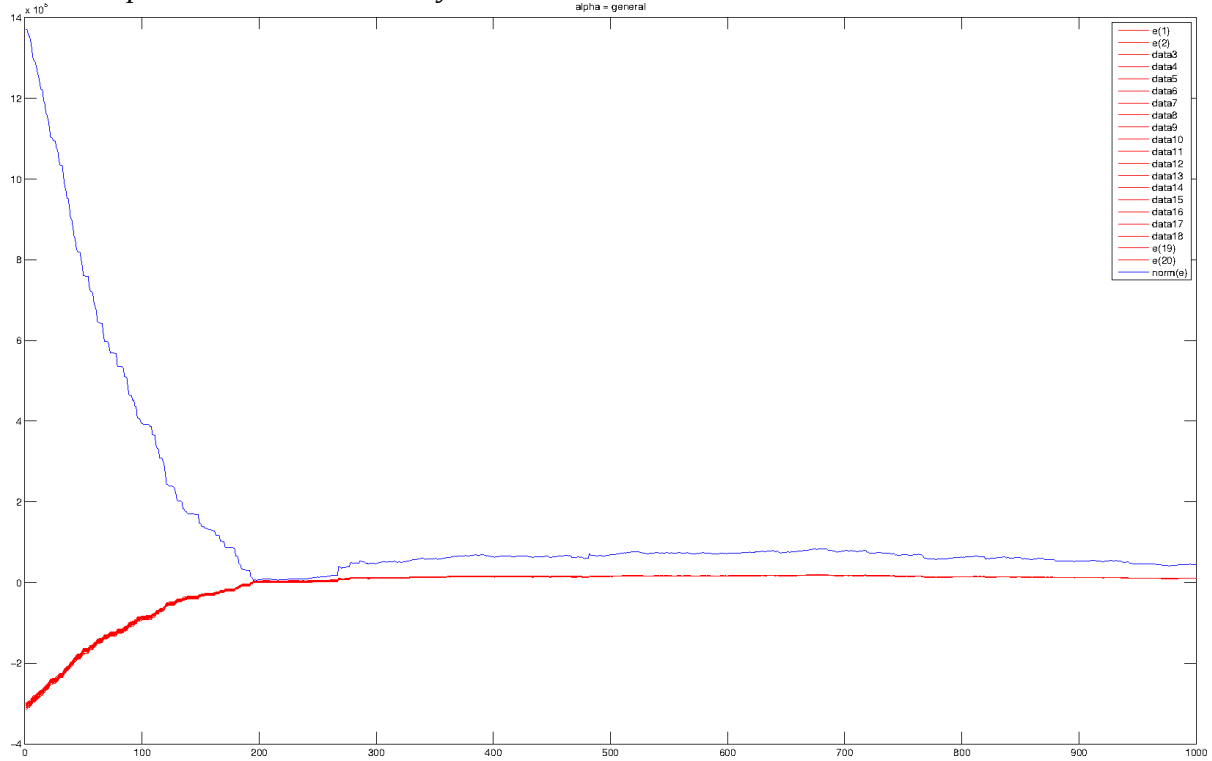


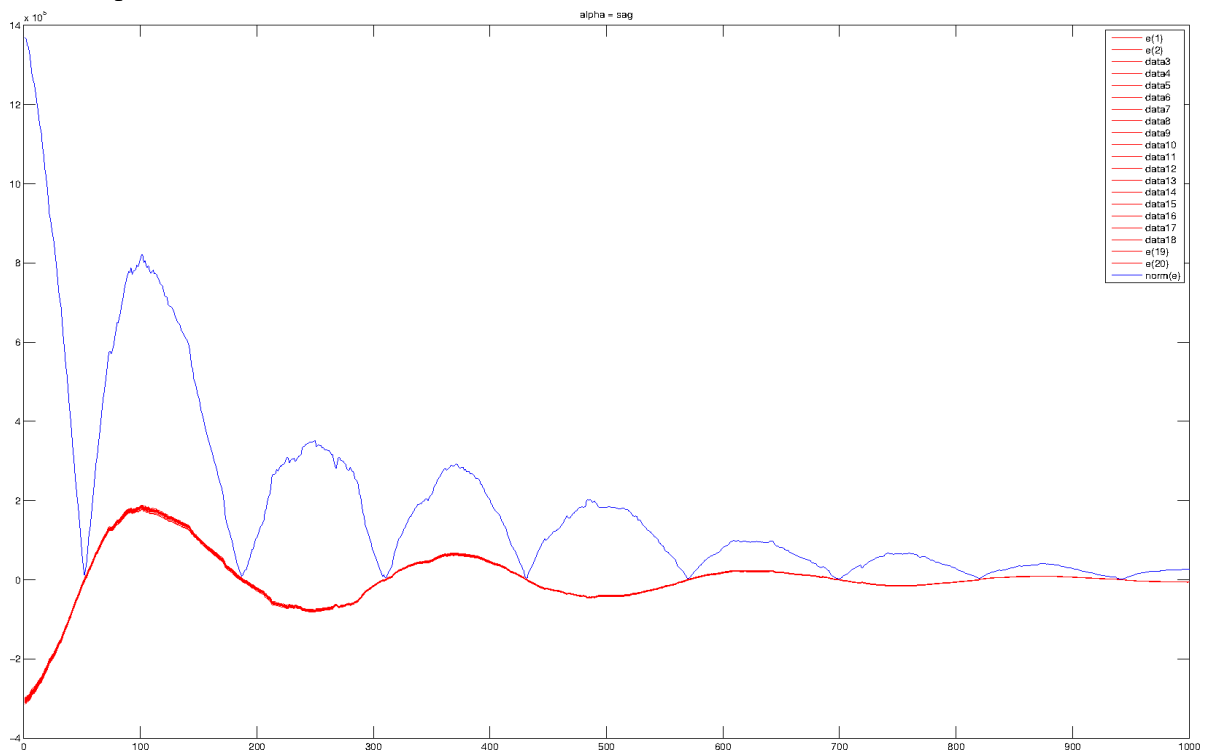
A sample run of sag starting with  $y_i=0$  and a random initial point.  
 $L = 5.0842e+03$ ,  $L/\mu = 75.6187$ , component functions = 100, dimension = 20

**Change in  $\mathbf{e}$**  (red: individual components of  $\mathbf{e}$ , blue: the norm of the vector)

*with alpha we have in our analysis:*

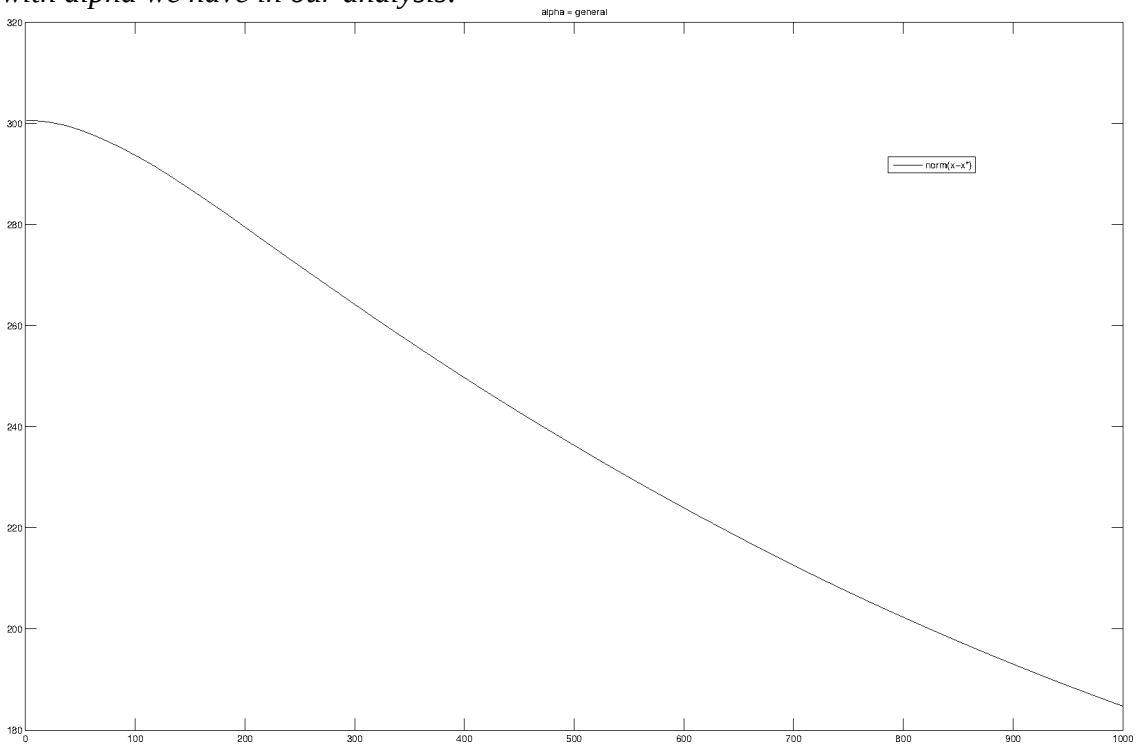


*with alpha=1/16L:*

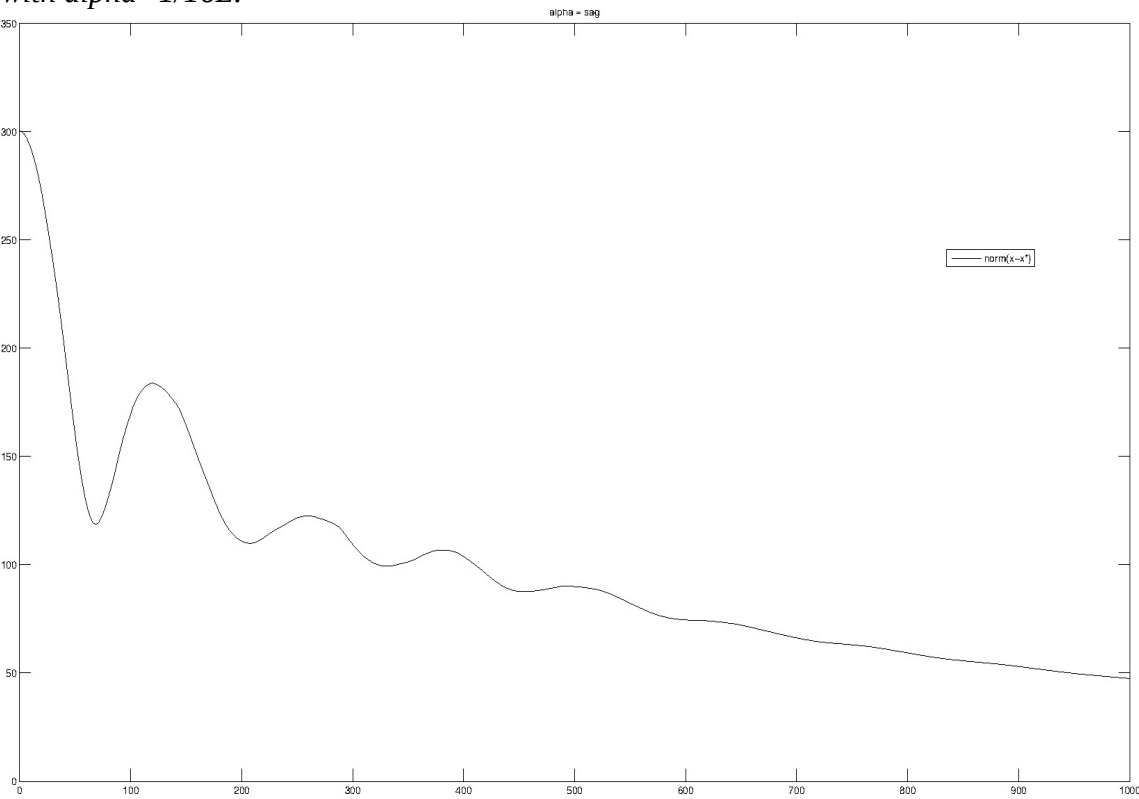


**Change in  $\text{norm}(x-x^*)$**

*with  $\alpha$  we have in our analysis:*



*with  $\alpha=1/16L$ :*



**Overall run** (in log scale, with  $\alpha=1/16L$ )

blue: sag bound

black:  $f(x)$

red:  $\text{norm}(e)$

green:  $\text{norm}(x-x^*)$

