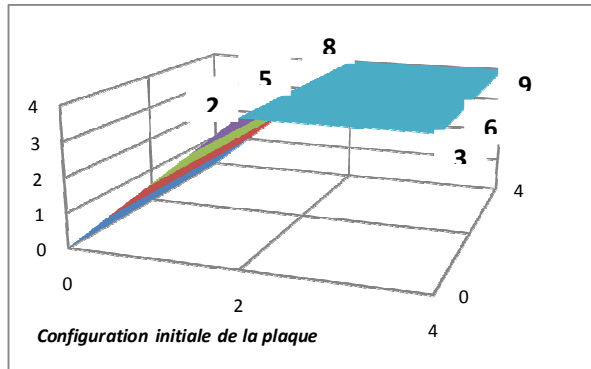




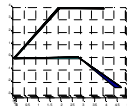
## Simulation Numérique d'une plaque en géométrie non linéaire (cas dynamique) Domaine élastique et domaine plastique

Caractéristiques de la plaque en acier :

$E = 2,1 \cdot 10^{11} \text{ N/m}^2$  ;  $\nu = 0,3$  ;  $\mu = 0,808$  ;  $\lambda = 1,212$  ;  $\sigma_{\text{ext}} = 5 \cdot 10^{11} \text{ N/m}^2$  ; Section =  $8 \cdot 10^{-5} \text{ m}^2$  ;  $F_{\text{ext}} = 4 \cdot 10^7 \text{ N}$ .



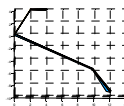
$F_{\text{ext}}$



40 itérations

Erreur : 55,47 %

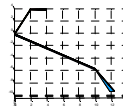
$F_{\text{int}} = 1,78 \cdot 10^7 \text{ N}$



80 itérations

Erreur : 1,33 %

$F_{\text{int}} = 3,94 \cdot 10^7 \text{ N}$

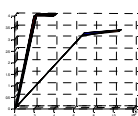


85 itérations

Erreur : 0,94 %

$F_{\text{int}} = 3,96 \cdot 10^7 \text{ N}$

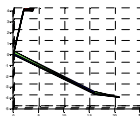
$F_{\text{ext}}$



40 itérations

Erreur : 67,07 %

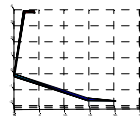
$F_{\text{int}} = 1,31 \cdot 10^7 \text{ N}$



80 itérations

Erreur : 30,15 %

$F_{\text{int}} = 2,79 \cdot 10^7 \text{ N}$

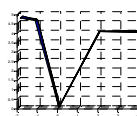
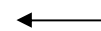


170 itérations

Erreur : 0,60 %

$F_{\text{int}} = 3,97 \cdot 10^7 \text{ N}$

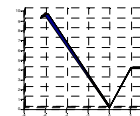
$F_{\text{ext}}$



40 itérations

Erreur : 65,18 %

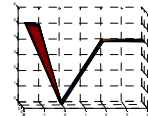
$F_{\text{int}} = 1,39 \cdot 10^7 \text{ N}$



80 itérations

Erreur : 36,79 %

$F_{\text{int}} = 2,52 \cdot 10^7 \text{ N}$

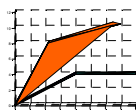


144 itérations

Erreur : 0,67 %

$F_{\text{int}} = 3,97 \cdot 10^7 \text{ N}$

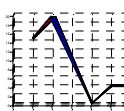
$F_{\text{ext}}$



40 itérations

Erreur : 63,56 %

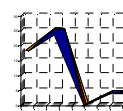
$F_{\text{int}} = 1,45 \cdot 10^7 \text{ N}$



80 itérations

Erreur : 37,44 %

$F_{\text{int}} = 2,50 \cdot 10^7 \text{ N}$



134 itérations

Erreur : 0,66 %

$F_{\text{int}} = 3,97 \cdot 10^7 \text{ N}$