



# Computational Materials Physics



## forces : introduction

Stefaan.Cottenier@ugent.be  
Technologiepark 903, Zwijnaarde

<http://molmod.ugent.be>  
<http://www.ugent.be/ea/dmse/en>  
my talks on Youtube: <http://goo.gl/P2b1Hs>

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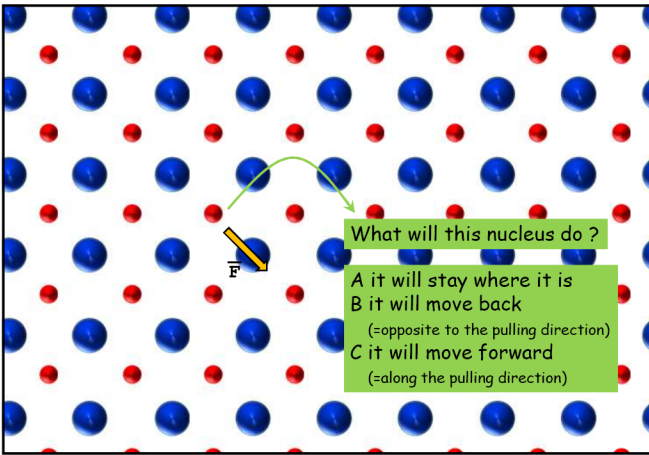
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You know how to calculate forces in classical mechanics :

2 identical springs  
rest length  $\ell_0$   
spring constant  $k$

Initial situation  
 $\vec{F} = 0$

After displacement  
 $\vec{F} = ?$

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In 15 minutes from now, you'll be able to calculate quantum forces for atoms in solids. Almost as easily as you can do it in classical mechanics.



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