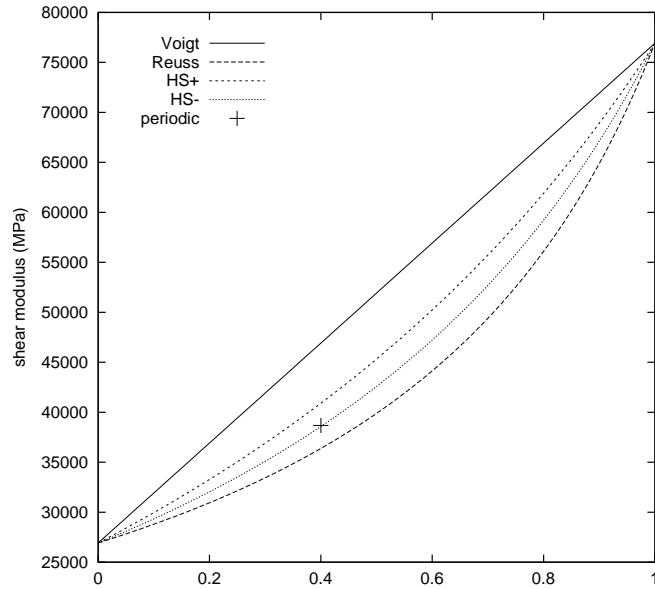
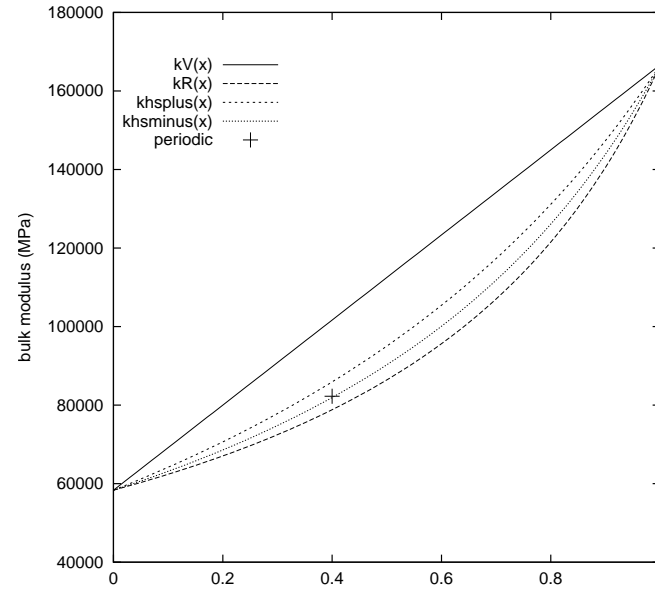


## Periodic homogenization of a fiber composite

Comparison of the values resulting from the periodic FE computation to Voigt, Reuss and Hashin–Shtrikman bounds



Predicted effective shear modulus :  $\mu_{per}^{eff} = \mu PeR$  MPa



Predicted effective bulk modulus :  $K_{per}^{eff} = KPeR$  MPa

*The average deformation prescribed to the unit cell is :  $E_{11} = 1$ ,  $E_{22} = 0.$ ,  $E_{33} = 0$ ,  $E_{12} = E_{21} = 0.5$*

*The current values of fiber and matrix properties are :*

$E_f$	Fibre	$v_f$	$E_m$	Matrix	$v_m$	Fibre volume fraction
						$f$

*Reset*

*Go*

[Link to the exercice](#)