

Omogeneizzazione numerica di materiali microstrutturati

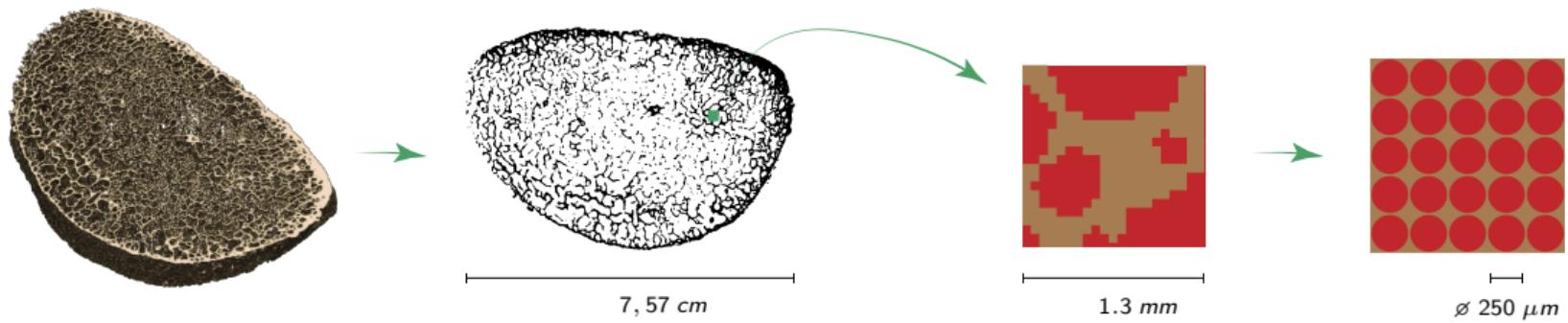
Omogenizzazione di tessuto osseo

Alessandro Mastrofini

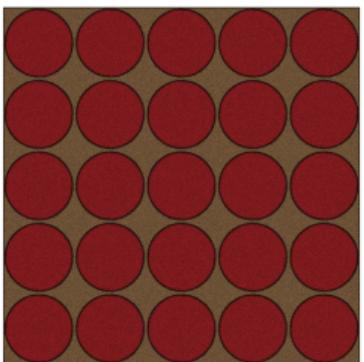
Meccanica Computazionale dei Tessuti e Biomateriali
Università degli Studi di Roma Tor Vergata

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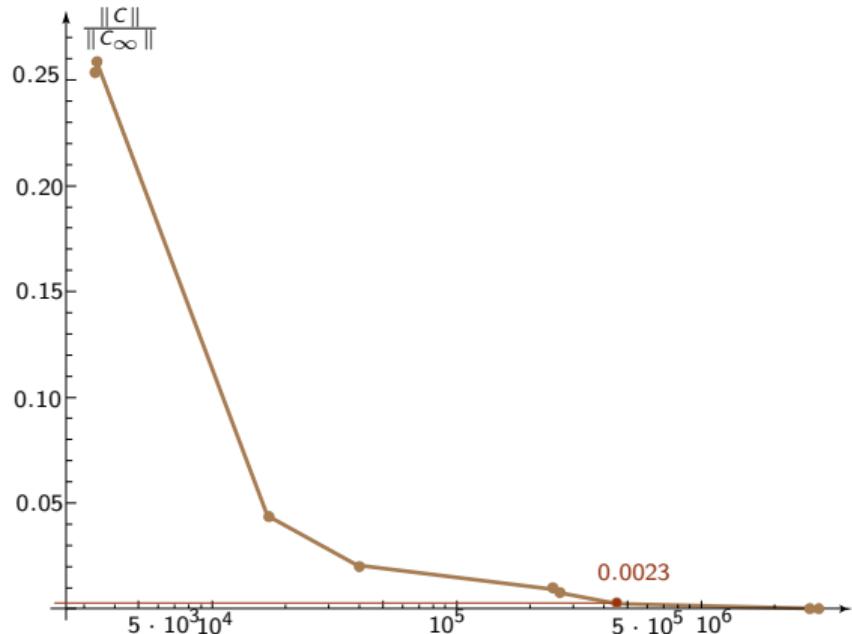
Volume di interesse



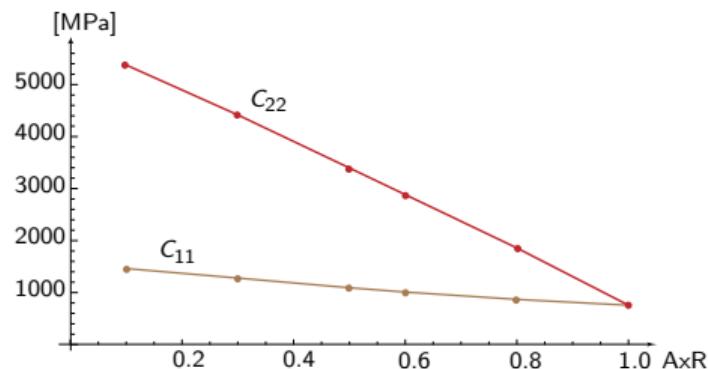
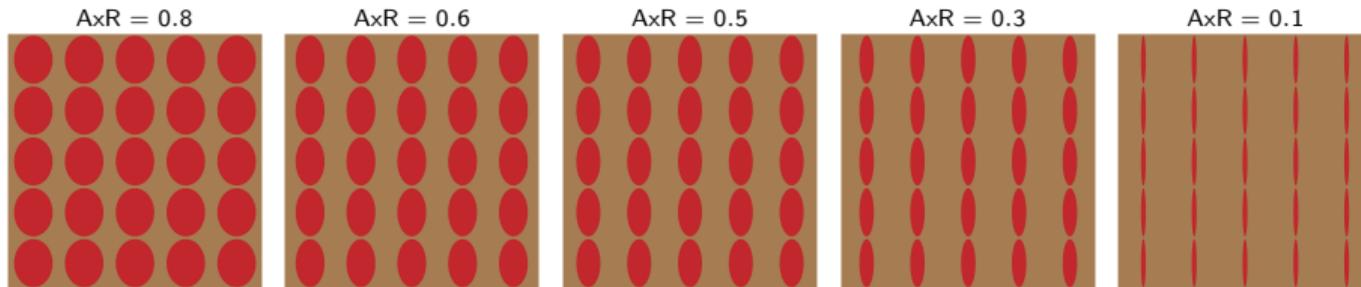
Omogenizzazione



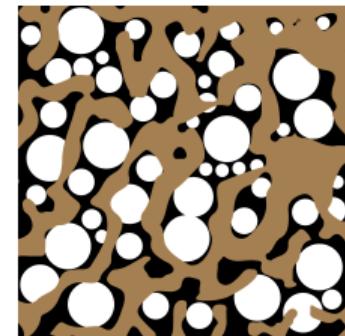
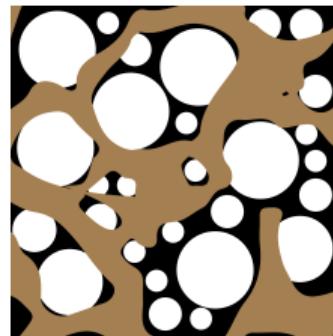
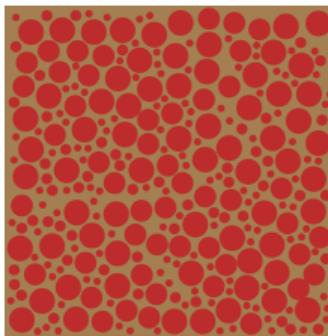
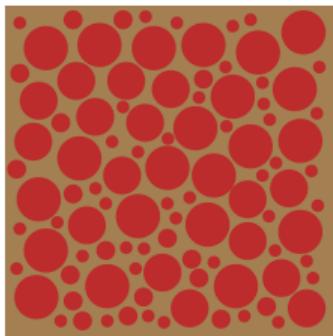
$$C^{(om)} = \begin{pmatrix} 756.78 & 80.90 & 0.00 \\ 80.90 & 756.78 & 0.00 \\ 0.00 & 0.00 & 40.87 \end{pmatrix}$$



Microstruttura



Regione di interesse



$$\begin{bmatrix} 1034.17 & 411.96 & -11.69 \\ 411.96 & 1074.45 & -21.40 \\ -11.67 & -21.41 & 224.12 \end{bmatrix}$$

$$\begin{bmatrix} 959.28 & 439.22 & 0.29 \\ 439.21 & 995.56 & -11.64 \\ 0.29 & -11.63 & 209.55 \end{bmatrix}$$

$$\begin{bmatrix} 1744.59 & 701.46 & 81.03 \\ 701.46 & 1649.60 & 49.05 \\ 81.03 & 49.05 & 540.63 \end{bmatrix}$$

$$\begin{bmatrix} 2237.42 & 887.87 & 19.48 \\ 887.87 & 2394.87 & 71.54 \\ 19.48 & 71.54 & 690.04 \end{bmatrix}$$

Parametri materiali

