

Cours 5 : Hydrodynamique et rhéologie des tissus

J.F. Joanny

Cours 4, Collège de France, 8 mars 2021

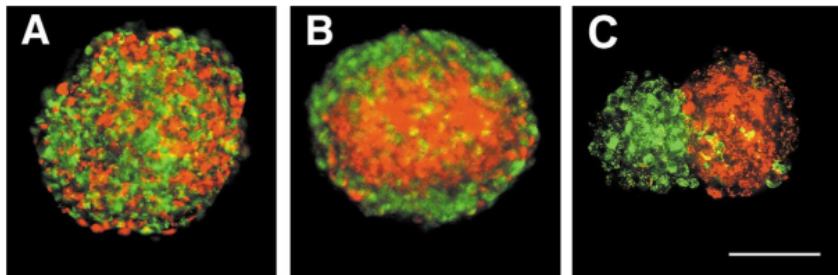


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Mouillage partiel *Steinberg*

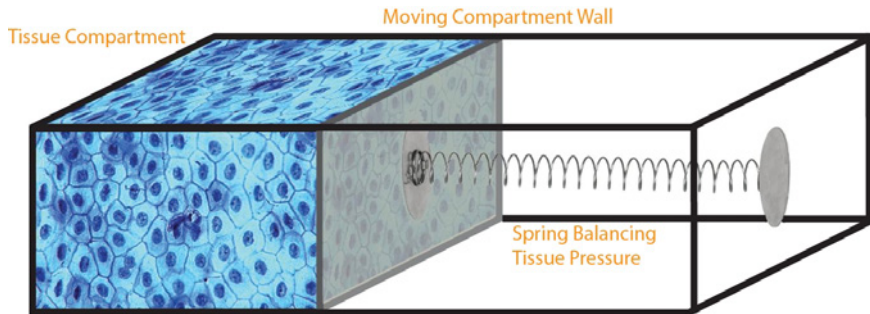


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Tissue infinitely compressible *M. Basan*

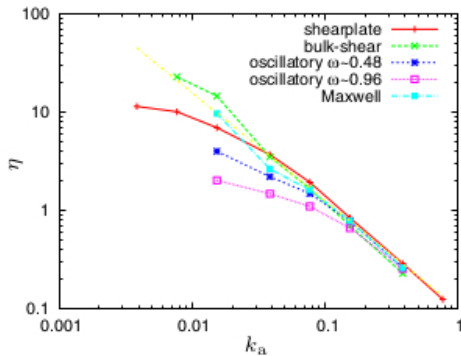
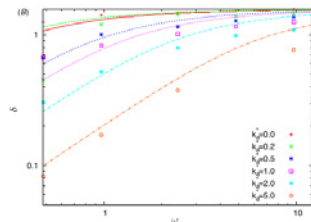
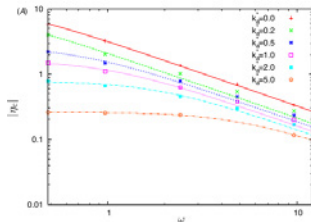


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Visco-élasticité d'un tissu *M. Basan, J. Elgeti*



- $\eta_c = \frac{\mu T_t}{(1 + \omega^2 \tau_t^2)^{1/2}}$

- $\delta = \arctan(\omega \tau_t)$

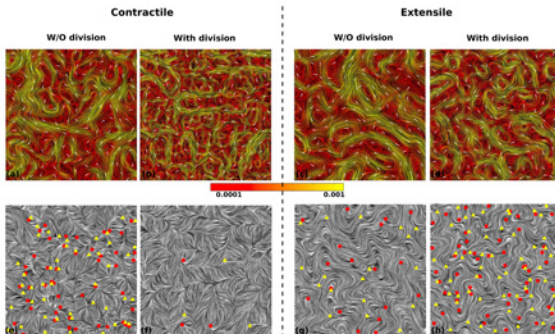
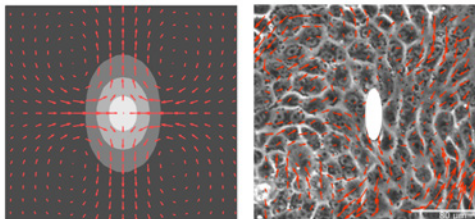
- $\eta \sim 1/k_a$



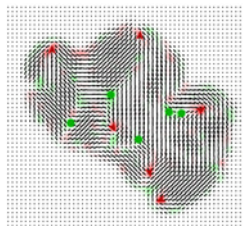
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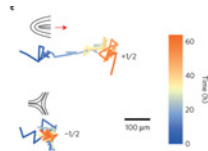
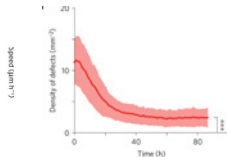
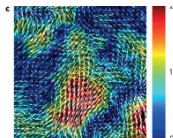
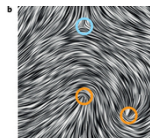
Division cellulaire et contrainte active extensile *J. Yeomans*



Mouvement de disinclinaisons dans un tissu extensible



Dell'Arciprete



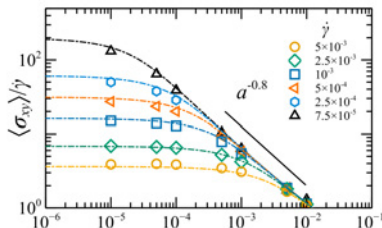
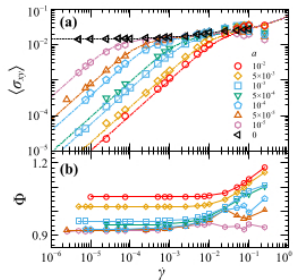
Duclos



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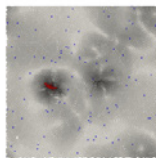
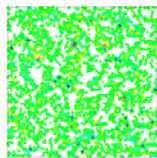
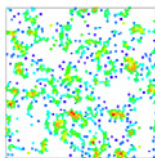
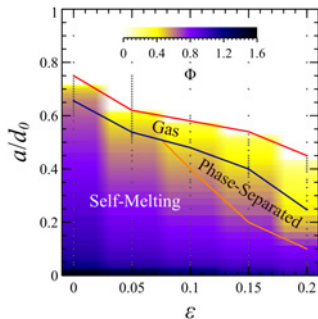
Rhéologie non-linéaire des tissus *Matos-Fernandez, Barrat et al.*



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Dynamique vitreuse et division cellulaire *Matos-Fernandez, Barrat et al.*



(a)

(b)

(c)

Fluage dans le PSM du poisson zèbre *Mongera et al.*

