

Constitutive behaviour of soft tissues: connecting experimental and modelling perspectives

Schedule

Wednesday 31st August 2016

10.00-10.20	Registration and welcome
10.20-10.25	Formal welcome

10.25-11.15	Perspectives I. T.C. Gasser: <i>“Constitutive modelling of the aorta.”</i>
11.15-11.40	N. Hill <i>“Parameter estimation for the Pulmonary Circulation.”</i>

11.40-12.00	Morning coffee
-------------	----------------

12.00-12.25	F. Davis: <i>“Pointwise identification of the elastic properties in thoracic aneurysm tissue.”</i>
12.25-12.50	X. Luo: <i>“Modelling dynamics of mitral valve.”</i>

12.50-14.00	Lunch
-------------	-------

14.00-14.25	D. Lacroix: <i>“Computational modelling of tissue engineering.”</i>
14.25-14.50	Y. Chen: <i>“Multiscale Mechano-Morphological Analysis of Soft Tissues.”</i>
14.50-15.15	S. Evans: <i>“Conventional constitutive models do not correctly describe the behaviour of soft materials under triaxial loading.”</i>

15.15-16.00	Afternoon tea
-------------	---------------

16.00-16.25	M. Ben Amar: <i>“Representing the cortex convolutions through the wrinkling of growing soft bilayers.”</i>
16.25-16.50	V. Balbi: <i>“TBA”</i>

19.30-	Dinner
--------	--------

Thursday 1st September 2016

09.30-10.00	Arrivals, tea and coffee
-------------	--------------------------

10.00-10.50	Perspectives II. S. Anand: <i>“Constitutive behaviour of soft tissues - a knee surgeon’s perspective.”</i>
10.50-11.15	C. Morin: <i>“Fiber reorientation in soft tissues: a multiscale micromechanical modeling approach.”</i>

11.15-12.00	Morning coffee
-------------	----------------

12.00-12.25	T. Shearer: <i>“A micromechanical model for the viscoelastic behaviour of tendon.”</i>
12.25-12.50	N. Reeves: <i>“In vivo tendon mechanical properties and adaptation to altered loading conditions.”</i>

12.50-14.00	Lunch
-------------	-------

14.00-14.50	Perspectives III: R. De Vita <i>“Biaxial Viscoelasticity of Uterosacral and Cardin.”</i>
14.50-15.15	M. Thompson: <i>“Mechanobiology of fibrillar tissues.”</i>
15.15-15.40	J. Palacio-Torralba: <i>“Tissue heterogeneity and patient-specificity.”</i>

15.40-16.20	Afternoon tea
-------------	---------------

16.20-16.45	P. Wijeratne: <i>“Multiscale biphasic modelling of tumour growth.”</i>
16.45-17.10	D. Riccobelli: <i>“’Poroelastic model of solid tumor growth.”</i>
17.10-17.35	D. Garcia-Gonzalez: <i>“A 3D numerical model for the prediction of the mechanical response of cranial implants.”</i>
17.35-18.00	A. Gower <i>“TBA”</i>

19.30-	Formal dinner
--------	---------------

Friday 2nd September 2016

09.00-09.30	Arrivals, tea and coffee
-------------	--------------------------

09.30-10.20	Perspectives IV. G. Limbert: <i>“Recent developments in computational skin biophysics.”</i>
10.20-10.45	M. Destrade: <i>“Instability and patterns due to residual stress.”</i>

10.45-11.30	Morning coffee
-------------	----------------

11.30-11.55	J-M. Allain: <i>“Multiscale characterization of mouse skin biomechanics.”</i>
11.55-12.20	A. Trotta: <i>“Viscoelastic properties of the scalp.”</i>
12.20-12.45	A. Ni Annaidh: <i>“Measuring the residual Stresses and Langer lines of skin.”</i>

12.45-12.50	Close of workshop
-------------	-------------------

12.50-14.00	Lunch
-------------	-------
