

Thierry Savin

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EDUCATION	PhD Chemical Engineering Massachusetts Institute of Technology, USA	2001 - 2006
	MSc Human Genetics Institut Pasteur, FR	2000 - 2001
	MSc Biophysics École Normale Supérieure de Cachan, FR	1999 - 2001
	BSc Physics Université Paris Diderot - Paris VII, FR	1995 - 1999
APPOINTMENTS	Assistant Professor (UK Lecturer) in Bioengineering Department of Engineering - University of Cambridge, UK	2013 -
	Class A Teaching Fellow Jesus College - University of Cambridge, UK	2013 -
	Postdoctoral Researcher Department of Materials Science - ETH Zürich, CH	2010 - 2013
	Postdoctoral Researcher School of Engineering and Applied Sciences - Harvard University, USA	2007 - 2010
	Research Consultant Corporate Engineering - Procter & Gamble Co., USA	2006 - 2007
TEACHING	University of Cambridge	
	M3 Torsion Testing Lab (Undergraduate, Engineering) - Leader	2017 -
	4G1 Mathematical Biology of the Cell (Graduate, Engineering & Physics) - Leader	2014 -
	M1 Materials Characterisation Lab (Undergraduate, Engineering) - Leader	2014 -
	5CC Research & Communication (Graduate, Engineering) - Leader	2014 -
	Exposition (Undergraduate, Engineering) - Leader	2014 -
	GG1 Microfluidics Project (Undergraduate, Engineering) - Leader	2013 -
	Jesus College	
	P2 Structural Mechanics (Undergraduate, Engineering) - Supervisions	2015 -
	P2 Engineering Materials (Undergraduate, Engineering) - Supervisions	2014 -
	P4 Mathematical Methods (Undergraduate, Engineering) - Supervisions	2013 -
	ETH Zürich	
	Praktikum Brownian Motion (Undergraduate, Materials Science) - Leader	2011 - 2013
Massachusetts Institute of Technology		
20.410 Molecular, Cellular and Tissue Biomechanics (Graduate, Bioengineering) - TA	2007	
10.22 Molecular Engineering (Undergraduate, Chemical Engineering) - TA	2004	
GRANTS/FUNDS	Current	
	• First Grant Scheme, Engineering and Physical Sciences Research Council - £100K	2017 -
	• Isaac Newton Trust & University of Cambridge Early Career Support - £20K	2015 -
	• Departmental bid for live-cell imaging - £150K Biomechanics Group, fund coordinator	2014 -
	• Startup Funds - £20K	2013 -
	Past	
	• MODIFY project, 7 th Framework Programme, European Commission - \$240K	2010 - 2012
	• Dupont MIT Alliance Fellowship, Massachusetts Institute of Technology - \$82K	2002 - 2006
	• John C. Haas Scholarship in ChemE, Massachusetts Institute of Technology - \$9K	2001 - 2002
	• French Ministry of Education ENS Scholarship - \$40K	1999 - 2001

ADVISING	PhD	Aude Mulard (University of Cambridge; <i>EPSRC Scholarship</i>)	2018-	
		Zuheir Zaidon (University of Cambridge; <i>Khazanah-Cambridge Scholarship</i>)	2017-	
		Michał Bogdan (University of Cambridge; <i>Cambridge Trust Scholarship</i>)	2015-	
		Soichiro Tottori (University of Cambridge; <i>Cambridge Trust Scholarship</i>)	2014-2015	
			Marco Schweizer (ETH Zürich, co-supervised)	2013-2015
	Master	Hannah Streat (MEng University of Cambridge; <i>Dyson Award</i>)	2018-	
		Theodore Chua (MEng University of Cambridge)	2018-	
		Gustave Ronteix (MPhil University of Cambridge; <i>DGA Scholarship</i>)	2017-2018	
		Lisa Lee (MEng University of Cambridge)	2017-2018	
		Holly Eade (MEng University of Cambridge)	2017-2018	
		Laurence Cochrane (MEng University of Cambridge)	2017-2018	
		Clement Moylan (MSci University of Cambridge)	2017-2018	
		Oliver Fleck (MPhil University of Cambridge; <i>EPSRC Scholarship</i>)	2016-2018	
		Suhail Idrees (MEng University of Cambridge)	2016-2017	
		Julia Sinclair (MEng University of Cambridge; <i>Dyson Award</i>)	2015-2016	
			Alan Le Gallec (MPhil University of Cambridge)	2014-2015
			Edmund Eustace (MEng University of Cambridge; <i>Dyson Award</i>)	2014-2015
BSc	Marcel Rey (ETH Zürich)	2011-2012		
Examiner	Victoire Cachoux (MPhil Engineering, University of Cambridge)	2017		
	Graeham Douglas (PhD Engineering, University of Cambridge)	2017		
	Adrien Hallou (PhD Engineering, University of Cambridge)	2017		
	Avelino Javier (PhD Physics, University of Cambridge)	2015		
	Chen Yen Ooi (PhD Engineering, University of Cambridge)	2014		
ACTIVITIES	Workgroup	Cambridge Edwards Centre for Soft Matter	2016-	
		Cambridge Cancer Centre, Imaging & Sensors	2015-	
		Cambridge Stem Cell Institute, Research Interfaces	2015-	
	Societies	Biophysical Society		
		American Physical Society APS		
		American Institute of Chemical Engineers AIChE		
		Society of Rheology		
	Reviewer	Journals		
		Physical Review X		
		Physical Review Letters		
		PLOS ONE		
		ACS Photonics		
		Biophysical Journal		
		Rheologica Acta		
		Journal of the Mechanical Behavior of Biomedical Materials		
		Biomacromolecules		
		Applied Rheology		
		Physical Review E		
		Journal of Time Series Analysis		
Nanoscale				
Grants				
	Biotechnology and Biological Sciences Research Council, UK			
Safety	Health and Safety Committee Member, Jesus College Cambridge	2015-		
	Institute of Safety in Technology and Research - Member	2014-		
	Departmental Biological Safety Officer, University of Cambridge	2014-		
	Lab Safety Officer, Harvard University	2007-2009		
	Lab Safety Officer, Massachusetts Institute of Technology	2003-2006		
Convener	Engineering Graduate Conference, University of Cambridge	2013-2017		
	Polymer Physics Seminar Series, ETH Zürich	2010-2013		
Outreach	Jesus College "Taster Days"	2017		
	Staff for the "Fête de la Science"	2000		
	Tutor in Physics & Mathematics	1998-1999		

Articles

- Bogdan M.J. and **Savin T.**[✉], Fingering instabilities in tissue invasion: an active fluid model, *R. Soc. Open Sci.* **5**:181579 (2018)
- Li Z., Tuffin J., Lei I.M., Ruggeri F.S., Lewis N.S., Gill E.L., **Savin T.**, Huleihel L., Badylak S.F., Knowles T., Satchell S.C., Welsh G.I., Saleem M.A. and Huang Y.Y.S.[✉], Solution fibre spinning technique for the fabrication of tuneable decellularised matrix-laden fibres and fibrous micromembranes, *Acta Biomater.* **78**:111 (2018)
- Bogdan M.J. and **Savin T.**[✉], Errors in energy landscapes measured with particle tracking, *Biophys. J.* **115**:139 (2018)
- Fleck O. and **Savin T.**[✉], A physical approach to model occlusions in the retinal microvasculature, *Eye* **32**:189 (2018)
- Dumanli A.G. and **Savin T.**[✉], Recent advances in the biomimicry of structural colours, *Chem. Soc. Rev.* **45**:6698 (2016)
- Jung S.[✉], Staples A.E.[✉], Dabiri J.O., Marsden A.L., Prakash M., Davis K.A., Shadden S.C., **Savin T.**, Bourouiba L. and Sznitman J., Research trends in biological fluid dynamics, *USNC/TAM Rep.* (2016)
- Schweizer M., Öttinger H.C.[✉] and **Savin T.**[✉], Nonequilibrium thermodynamics of an interface, *Phys. Rev. E* **93**:052803 (2016)
- **Savin T.**, Bandi M.M. and Mahadevan L.[✉], Pressure-driven occlusive flow of a confined red blood cell, *Soft Matter* **12**:562 (2016)
- **Savin T.**[✉], Briels W.J. and Öttinger H.C., Thermodynamic formulation of flowing soft matter with transient forces, *Rheol. Acta* **52**:23 (2013)
- Taj D. and **Savin T.**[✉], International Workshop on Nonequilibrium Thermodynamics (IWNET 2012) and 3rd Lars Onsager Symposium, *Appl. Rheol.* **22**:274 (2012)
- Peleg O., **Savin T.**, Kolmakov G.V., Salib I.G., Balazs A.C., Kröger M.[✉] and Vogel V.[✉], Fibers with integrated mechanochemical switches: minimalistic design principles derived from fibronectin, *Biophys. J.* **103**:1909 (2012)
- **Savin T.**, Shyer A.E. and Mahadevan L.[✉], A method for tensile tests of biological tissues at the mesoscale, *J. App. Phys.* **111**:074704 (2012)
- **Savin T.**[✉], Glavatskiy K.S., Kjelstrup S., Öttinger H.C. and Bedeaux D., Local equilibrium of the Gibbs interface in two-phase systems, *Europhys. Lett.* **97**:40002 (2012)
- Salib I.G., Kolmakov G.V., Bucior B.J., Peleg O., Kröger M., **Savin T.**, Vogel V., Matyjaszewski K. and Balazs A.C.[✉], Using mesoscopic models to design strong and tough biomimetic polymer networks, *Langmuir* **27**:13796 (2011)
- **Savin T.**[✉], Gut looping morphogenesis | La morphogenèse de l'enroulement intestinal, *Med. Sci.* **27**:1061 (2011)
- **Savin T.**[✉], Kurpios N.A.[✉], Shyer A.E.[✉], Florescu P., Liang H., Mahadevan L.[✉] and Tabin C.J., On the growth and form of the gut, *Nature* **476**:57 (2011)
- **Savin T.**[✉], Spicer P.T. and Doyle P.S.[✉], A rational approach to noise discrimination in video microscopy particle tracking, *App. Phys. Lett.* **93**:024102 (2008)
- **Savin T.** and Doyle P.S.[✉], Statistical and sampling issues when using multiple particle tracking, *Phys. Rev. E* **76**:021501 (2007)
- **Savin T.** and Doyle P.S.[✉], Electrostatically-tuned rate of peptide self-assembly resolved by multiple particle tracking, *Soft Matter* **3**:1194 (2007)
- **Savin T.** and Doyle P.S.[✉], Role of a finite exposure time on measuring an elastic modulus using microrheology, *Phys. Rev. E* **71**:041106 (2005)
- **Savin T.** and Doyle P.S.[✉], Static and dynamic errors in particle tracking microrheology, *Biophys. J.* **88**:623 (2005)

Proceedings

- Shyer A.E., **Savin T.**, Tallinen T., Kurpios N.A., Huycke T., Mahadevan L. and Tabin C.J., Building an organized organism: physical forces as biological sculptors, 2014 ASCB/IFCB Meeting, *Molecular biology of the cell* **25**:K5 (2014)

PRESENTATIONS **Invited**

- Chemical Engineering & Biotechnology, University of Cambridge (Cambridge, UK, Nov 22 2017)
- Early Detection Programme, CRUK Cambridge Cancer Centre (Cambridge, UK, Oct 30 2017)
- 47th Cambridge Ophthalmological Symposium (Cambridge, UK, Sep 7 2017)
- Cell and Developmental Biology, University College London (London, UK, Apr 27 2016)
- Department of Chemistry, University of Cambridge (Cambridge, UK, Nov 17 2015)
- Research Interfaces Workshop, Cambridge Stem Cell Institute (Cambridge, UK, Oct 28 2015)
- Café Synthétique, Cambridge Synthetic Biology (Cambridge, UK, Oct 19 2015)
- Biological and Soft Systems, Cavendish Laboratory (Cambridge, UK, Mar 6 2015)
- Jesus College Engineering Society (Cambridge, UK, Nov 7 2014)
- Fluid Dynamics of Living Systems, NSF-sponsored Workshop (Arlington VA, USA, Sep 15 2014)
- Department of Mechanical Engineering, MIT (Cambridge MA, USA, Feb 27 2013)
- Physique & Mécanique des Milieux Hétérogènes, ESPCI (Paris, France, Feb 22 2013)
- Center for Biomedical Engineering, Brown University (Providence RI, USA, Feb 5 2013)
- Department of Engineering, University of Cambridge (Cambridge, UK, Jan 21 2013)
- Department of Mechanical Engineering, Johns Hopkins University (Baltimore MD, USA, Oct 4 2012)
- Department of Bioengineering, Stanford University (Palo Alto CA, USA, Aug 28 2012)
- Department of Chemical Engineering, Stanford University (Palo Alto CA, USA, Jun 5 2012)
- Department of Civil & Environmental Engineering, MIT (Cambridge MA, USA, Mar 2 2012)
- Biophysics Seminar Series, MIT (Cambridge MA, USA, Feb 29 2012)
- Swiss Soft Days 6th Meeting (Zürich, Switzerland, Oct 28 2011)
- Soft Matter Physics Approaches to Biology, KITP (Santa Barbara CA, USA, May 23-27 2011)
- Biologically Oriented Materials, ETH Zürich (Zürich, Switzerland, Nov 8 2010)
- Physical Systems Biology and Non-Equilibrium Soft Matter, University of Zürich (Zürich, Switzerland, Mar 25 2010)
- WingX Initiative Meeting (Zürich, Switzerland, Mar 17 2010)
- Institut für Polymere, ETH Zürich (Zürich, Switzerland, Jul 1 2009)
- Engineering and Applied Sciences, Harvard University (Cambridge MA, USA, Jun 15 2007)
- Center for Soft Matter Research, NYU (New York NY, USA, May 3 2007)
- Séminaire Matière Molle & Biologie, LBHP (Paris, France, Jun 27 2003)
- Department of Physics & Astronomy, UPenn (Philadelphia PA, USA, Apr 18 2002)

Contributed

- APS Division of Fluid Dynamics 71st Annual Meeting (Atlanta GA, USA, Nov 18-20 2018)
- Gordon Research Seminar - Soft Condensed Matter Physics (New London NH, USA, Aug 12-13 2017)
- IOP Advanced School in Soft Condensed Matter (Cambridge, UK, Apr 3-6 2016)
- APS Annual March Meeting (Baltimore MD, USA, Mar 14-18 2016)
- AIChE Annual Meeting (Pittsburgh PA, USA, Oct 28 - Nov 2 2012)
- 6th International Workshop on Nonequilibrium Thermodynamics (Røros, Norway, Aug 19-24 2012)
- MODIFY European Consortium Meeting (Antwerp, Belgium, May 3-4 2012)
- APS Annual March Meeting (Boston MA, USA, Feb 27 - Mar 2 2012)
- MODIFY European Consortium Meeting (Zürich, Switzerland, Dec 8-9 2011)
- Workshop on Dynamics of Interfaces, Lorentz Center (Leiden, the Netherlands, Sep 26-30 2011)
- MODIFY European Consortium Meeting (Athens, Greece, Jun 9-10 2011)
- Workshop on Mechanics and Growth of Tissues: from Development to Cancer, MPI (Dresden, Germany, Mar 21-25 2011)
- Biophysical Society 55th Annual Meeting (Baltimore MD, USA, Mar 5-9 2011)
- MODIFY European Consortium Meeting (Leuven, Belgium, Dec 2-3 2010)
- Swiss Soft Days 2nd Meeting (Lausanne, Switzerland, Jun 23 2010)
- MODIFY European Consortium Meeting (Paris, France, Jun 10-11 2010)
- APS Division of Fluid Dynamics 62nd Annual Meeting (Minneapolis MN, USA, Nov 22-24 2009)
- Biophysical Society 53rd Annual Meeting (Boston MA, USA, Feb 28 - Mar 4 2009)
- The Society of Rheology 77th Annual Meeting (Vancouver BC, Canada, Oct 16-20 2005)
- Dupont MIT Alliance Annual Student Symposium (Cambridge MA, USA, Sep 20 2005)
- Dupont MIT Alliance Annual Research Symposium (Wilmington DE, USA, May 20 2005)
- The Society of Rheology 76th Annual Meeting (Lubbock TX, USA, Feb 13-17 2005)
- AIChE Annual Meeting (Austin TX, USA, Nov 7-12 2004)
- Dupont MIT Alliance Annual Student Symposium (Cambridge MA, USA, Oct 13 2004)
- Dupont MIT Alliance Annual Research Symposium (Wilmington DE, May 28 2004)
- APS Annual March Meeting (Montreal QC, Canada, Mar 22-26 2004)
- AIChE Annual Meeting (San Francisco CA, USA, Nov 16-21 2003)
- The Society of Rheology 75th Annual Meeting (Pittsburgh PA, USA, Oct 12-16 2003)
- Dupont MIT Alliance Annual Student Symposium (Cambridge MA, USA, Sep 22 2003)
- DuPont Co.'s Marshall Laboratory (Philadelphia PA, USA, Aug 15 2003)
- The Society of Rheology 74th Annual Meeting (Minneapolis MN, USA, Oct 13-17 2002)
- Dupont MIT Alliance Annual Student Symposium (Cambridge MA, USA, Sep 23 2002)

COLLABORATORS	 Dr. P. Meyer - Addenbrooke's Hospital, UK	2017 -
	 Dr. A. Markaki - University of Cambridge, UK	2017 -
	 Dr. Z. Teng - Addenbrooke's Hospital, UK	2017 -
	 Dr. E. Reyssat - ESPCI, FR	2015 -
	 Dr. A. Gümrah Dumanli - Adolphe Merkle Institute, CH	2014 - 2016
	 Dr. A. Kabla - University of Cambridge, UK	2014 -
	 Dr. H. C. Öttinger - ETH Zürich, CH	2013 - 2016
	 Dr. W. J. Briels - University of Twente, NL	2012 - 2013
	 Dr. M. Kröger - ETH Zürich, CH	2011 -
	 Dr. V. Vogel - ETH Zürich, CH	2011 - 2013
	 Dr. D. Bedeaux - NTNU Trondheim, NO	2011 - 2012
	 Dr. S. Kjelstrup - NTNU Trondheim, NO	2011 - 2012
	 Dr. M. M. Bandi - OIST, JP	2010 - 2015
	 Dr. L. Mahadevan - Harvard University, USA	2009 - 2017
	 Dr. H. Liang - USTC Hefei, CN	2009 - 2011
	 Dr. C. J. Tabin - Harvard University, USA	2009 - 2011
	 Dr. P. S. Doyle - Massachusetts Institute of Technology, USA	2007 - 2009
	 Dr. C. M. Marques - Institut Charles Sadron, FR	2001 - 2002