

Sunday 6th

Registration

12:00

18:00 DINNER

Opening

19:30 Organizers

Opening notes

19:50 J. Radler

Dedication of the conference

20:20 H. Gaub

Opening talk

Welcome drink

21:00

Congress centre

Instalation of Poster session I and the exhibition

Monday 7 th	TIME	NAME	TITLE
Adhesion	09:00	B. Geiger	Involvement of cell adhesion in environmental sensing
	09:35	H. G. Dobereiner	Morphology of Membranes, Mice, and Molds
	09:55	H. Aranda-Espinoza	Cellular blebs control the early stage of cell spreading
	10:15	P. Bongrand	Early dynamics of cell-surface interactions
	10:50	BREAK	
	11:20	M. Dustin	Signal initiation and termination in the immunological synapse formed at a cell-planar bilayer interface
	11:55	F. Rehfeldt	Biocompatible and Mechanically Tunable Hyaluronic Acid Hydrogels to Mimic In Vivo Microenvironments in 2D and 3D
	12:15	A. Curtis	Spontaneous and forced dancing of the cell's plasmolemma
	12:50	LUNCH	
Mechanoresponse	14:30	S. Safran	Theory of cellular response to mechanical stress
	15:05	S. Gabriele	Viscoelastic and Adhesive Properties of Individual Neuron Cells
	15:25	R. Kemkemer	Temporal aspects of Cellular mechao-responses
	15:45	C. Schmidt	Shape and forces of cells on micropatterned substrates
	16:20	BREAK	
Mechanoresponse	18:00	U. Schwartz	Shape and forces of cells on micropatterned substrates
	18:35	S. Jeney	Membrane viscoelasticity of living bladder cells studied by Photonic Force Microscopy
Poster talks	18:55	P. Davidson	Microstructured Surfaces Cause Severe but Non-Detrimental Deformation of the Cell Nucleus
	19:05	M. Reffay	Sociology of epithelial cells: follow the leader
	19:15	F. Rico	Temperature modulation of integrin mediated cell adhesion
	19:25	J. Etienne	Dynamics of initial spreading of a cell on a substrate
	19:35	D. Cuvelier	Spreading dynamics: From single cells to ball of cells
	19:45	DINNER	
Poster I	21:00		Congress centre
Exhibition	21:00		Congress centre

Tuesday 8 th	TIME	NAME	TITLE
Membranes	09:00	F. Brochard-Wyart	Aspiration of soft objects: from polymersomes to cellular aggregates
	09:35	P. Ziherl	Morphology of simple cell aggregates
	09:55	M. Abkarian	Fast elastic ejection of malaria parasites from erythrocytes
	10:15	D. Andelman	Beyond standard Poisson-Boltzmann theory: ion-specific interactions between charged surfaces and macromolecules
	10:50	BREAK	
ECM	11:20	P. Pincus	Polyelectrolyte rigidity
	11:55	H. Böhm	Micromechanical Properties and Structure of the Pericellular Coat of Living Cells
	12:15	O. Lielig	Selective filtering of particles by the Extracellular Matrix: An electrostatic bandpass
	12:35	L. Addadi	Surface dependent regulation of osteoclast activity
	13:10	LUNCH	
Cytoskeleton / Motors	14:30	A. Bausch	Cytoskeletal mechanics: Structure and Dynamics
	15:05	A. Vilfan	Twirling motion of actin filaments driven by myosins
	15:25	A. Parmeggiani	Tubular lipid membrane instabilities and protein coupling mediated by critical modes
	15:45	C. Haussinger	Statics and Dynamics of Cytoskeletal Bundles and Microtubules
	16:05	BREAK	
	18:00	E. Frey	Conformation and Dynamics of Biopolymer Assemblies
	18:35	F. Höfling	Entanglement Dynamics of Stiff Biopolymers
	18:55	I. Tolic-Norrelykke	Self-organization of dynein motors generates meiotic nuclear oscillations
19:15	N. Pavin	Reliable centering of dynamic microtubule asters in microfabricated chambers by pulling forces	
	19:40	DINNER	
Informal discussions	21:00		Congress centre Tasting of south Croatian wines Continuation of Poster session I and Exhibition

Wednesday 9 th	TIME	NAME	TITLE
Active systems	09:00	D. Bensimon	Single cell physiology: Optical control of protein expression and activity at the single cell level; applications to morphogenesis in zebrafish
	09:35	F. Jülicher	Dynamics of Tissues
	10:10	J. Prost	Simple examples of tissue dynamics
	10:45	F. MacKintosh	Cytoskeletal networks and active gels: implications for cell mechanics and dynamics
Excursion	11:30	Departure	Šibenik (cathedral) - Krka National Park - Split (Diocletians palace)
	19:00	Free evening in Split	No dinner in the hotel Return to Primošten by bus at 21:00, 22:00, 24:00 (timings subject to changes)
evening			Dismantling of Poster session I and installation of Poster session II

Thursday 10 th	TIME	NAME	TITLE	
Single molecules	09:00	E. Evans	Forces in Cell Adhesion: From surface bonds outside to cytoskeletal bonds inside a cell	
	09:35	A. Noy	Probing near-equilibrium binding with molecular force spectroscopy	
	09:55	U. Seifert	Stochastic Thermodynamics in Biophysical systems	
	10:30	BREAK		
	11:00	T. Springer	The shear-sensor domain in the ultra-large protein, von Willebrand factor	
	11:35	B. Zagrovich	Studying protein-protein interactions using computer simulations: from specific effects to protein ecology	
	11:55	A. Krukau	MD Simulations of the kinesin conformational changes.	
	12:15	LUNCH		
	DNA	14:00	R. Podgornik	Role of Multipoles in Counterion-Mediated Interactions between Charged Surfaces: Strong and Weak Coupling
		14:35	O. Farago	Simulations of self-assembly of cationic lipids and DNA into structured complexes
14:55		S. Tomic	Structure and Dynamics of Na-DNA Aqueous Solutions	
15:30		H. Strey	Single cell mRNA extraction and expression analysis using droplet microfluidics	
16:05		BREAK		
Poster talks	18:00	T. Boudou	Internal structure and mechanical properties of polyelectrolyte multilayer films: Implications on cellular processes	
	18:10	P. Fernandez	The compaction of gels by cells: a case of collective mechanical activity	
	18:20	T. Auth	Budding and vesiculation induced by conical membrane inclusions	
	18:30	H. Delanoy-Ayari	Three dimensional traction force microscopy	
	18:40	G. Massiera	High-yield, simple, fast and robust method for the production of controlled vesicles	
	19:00	DINNER		
Poster II	20:00	Poster session 2	Congress centre	

Friday 11 th	TIME	NAME	TITLE
Motility and adhesion	09:00	R. Merkel	A Quantitative Analysis of Cell Reorientation upon Cyclic Stretch
	09:35	M. Dembo	Continuum Models of Amoeboid Motility
	10:10	R. Endres	How accurately can cells sense noisy concentration gradients?
	10:30	BREAK	
	11:00	M. Sheetz	Shaping Cells by Force and Rigidity through Protein Stretching
	11:35	K. Kroy	Nonlinear Cell Mechanics Is Plastic Mechanics
	11:55	A. Ben Shaul	Molecular and Cellular Aspects of Cadherin-Mediated Adhesion
12:30	LUNCH		
Cell mechanics	14:00	R. Kamm	Numerical Simulations of Cytoskeletal Rheology
	14:35	A. Viallat	Red blood cells in an oscillating shear flow: a story of synchronization of membrane rotation
	14:55	O. Theodoly	Microfluidics: Distinct roles for actin cytoskeleton and myosin II activity in capillary leukocyte trafficking
	15:15	P. Janmey	Non-linear Elasticity of Extracellular Matrices Enables Cells to Communicate Mechanically
15:50	BREAK		
Intracellular processes	18:00	G. Gerisch	Self-organizing actin waves – just a game of nature?
	18:35	D. Heinrich	Intracellular transport phenomena influenced by the micro and nano-architecture of living cells
	19:10	A. Gamba	Phase ordering in eukaryotic chemotaxis
	19:30	I. Weber	Monitoring the dynamics of Rac proteins in Dictyostelium discoideum
20:05	DINNER		
Informal discussions	21:00		Congress centre
			Tasting of north Croatian wines
			Continuation of Poster session II

Saturday 12 th			
	TIME	NAME	TITLE
Virus	09:00	W. Gelbart	What do we learn from trying to make viruses outside the cell?
Honorable Chair:	09:35	V. Lorman	Physics of icosahedral viruses: capsid structure, self-assembly and maturation
C. Knobler	09:55	R. Bruinsma	How does your virus grow
	10:30	F. Livolant	Bacteriophage and toroidal DNA
	11:05	BREAK	
Adhesion	11:35	M. Tanaka	Physical Roles of Oligo and Polysaccharides in Modulation at Cell/Cell and Cell/Tissue Interfaces
	12:10	E. Reister	Thermal membrane fluctuations: the impact on specific adhesion
	12:30	S. Fenz	Evolution of receptor distribution following specific inter-membrane adhesion
	12:50	LUNCH	
Membranes	14:30	H. Möhwald	Stimulated and remote controlled intercellular release of drugs to follow cellular functions
Honorable Chair:	15:05	T. Weikl	Binding cooperativity of membrane adhesion receptors
S. Svetina	15:25	P. Bassereau	Role of curvature in intracellular trafficking
	16:00	BREAK	
	16:30	P. Schwille	Minimal systems for cellular self-organization
	17:05	J. Guck	Living optical elements in the vertebrate retina
Poster prize	17:25	Best posters	Sponsored by EPJE
Presented by:			
S. Tomic			
	18:00	Dismantling of Poster session II	
Party	20:00	E. Sackmann's birthday party	

Sunday 13 th	TIME	NAME	TITLE
Active systems	09:00	R. Lipowsky	Molecular motors: Energy Conversion, Cargo Transport, and Traffic Phenomena
	09:35	J. Käs	Feeling for Cells with Light: Illuminating the Role of Biomechanics for Cancer Metastasis
Final talk	10:10	E. Sackmann	Microtubule-actin cross-talk as cell stress sensor and dynamic global cell stabilizer
Closing	11:00	Organizers	















