



SoftComp
SOFT MATTER COMPOSITES



Annual Meeting 2022

Programme



SoftComp
SOFT MATTER COMPOSITES



Annual Meeting 2022 Schedule

CET

Monday 16/5

17:30	Get acquainted
20:00	Dinner

Tuesday 17/5

08:45	Opening remarks (Tafuri A)	
09:00	Plenary 1 DIJKSTRA (Tafuri A)	
10:00	Coffee break	
10:30	Colloidal Soft Matter (Tafuri A)	Polymeric Soft Matter (Tafuri B)
12:00	Lunch break	
13:30	Plenary 2 GRECO (Tafuri A)	
14:30	Bioinspired Soft Matter (Tafuri A)	Topical: Soft interfaces (Tafuri B)
16:00	Coffee break	
16:30	Discussion with plenary speakers (Tafuri A)	
17:00	Posters and networking	
18:00	NCC Meeting	
20:00	Dinner	

Wednesday 18/5

09:00	Plenary 3 HEIMBURG (Tafuri A)	
10:00	Coffee break	
10:30	Polymeric Soft Mater (Tafuri A)	Colloidal Soft Matter (Tafuri B)
12:00	Lunch break	
13:30	Plenary 4 GARBIN (Tafuri A)	
14:30	Processing Soft Matter (Tafuri A)	Polymeric Soft Matter (Tafuri B)
16:00	Coffee break	
16:30	Discussion with plenary speakers (Tafuri A)	
17:00	Posters and networking	
18:00	NGB Meeting	
20:00	Dinner	

Thursday 19/5

09:00	Plenary 5 YEOMANS (Tafuri A)	
10:00	Coffee break	
10:30	Topical: Soft interfaces (Tafuri A)	Polymeric Soft Matter (Tafuri B)
12:00	Lunch break	
13:30	Plenary 6 KOB (Tafuri A)	
14:30	Young Scientists Sessions	
	1 (Tafuri A)	2 (Tafuri B)
16:10	Coffee break	
16:40	Discussion with plenary speakers (Tafuri A)	
17:30	Closing remarks (Tafuri A)	
20:00	Dinner	



Annual Meeting 2022, Tuesday 17 May

Start time	Room	Title of contribution	Speaker first name	Speaker family name	Start time	Room	Title of contribution	Speaker first name	Speaker family name
08:45	Tafuri A	Opening remarks			08:45	Tafuri A	Opening remarks		
09:00	Tafuri A	Machine learning and Inverse design of soft materials	Marjolein	Dijkstra	09:00	Tafuri A	Machine learning and Inverse design of soft materials	Marjolein	Dijkstra
10:00	Cofee break								
10:30	Tafuri A	An experimental model of Fickian yet non-Gaussian Diffusion: colloidal tracers in heterogeneous light patterns	Raffaele	Pastore	10:30	Tafuri B	Failure behavior in catch bond networks	Jose	Ruiz-Franco
11:00	Tafuri A	Coarse grained molecular dynamics simulations of passive partitioning of small molecules through cell membranes	Eoin	Kearney	11:00	Tafuri B	Deep learning-based non-intrusive detection of instabilities in formulated liquids	Massimiliano Maria	Villone
11:20	Tafuri A	Alternating amphiphilic polymers: from gels and micelles to translocation through lipid membranes	Ekaterina	Kostyurina	11:20	Tafuri B	The ductile to brittle transition of proper fudge making	Andreia	Silva
11:40	Tafuri A	Wrapping soft non-spherical vesicles at membranes	Jiarul	Midya	11:40	Tafuri B	Understanding liquid fabric enhancers as soft colloidal glasses	Francesco	Rusciano
12:00	Lunch break								
13:30	Tafuri A	Diffusion and Soft Glasses	Francesco	Greco	13:30	Tafuri A	Diffusion and Soft Glasses	Francesco	Greco
14:30	Tafuri A	Chitosan-based hydrogels: Influence of crosslinking strategy on rheological properties	Fabien	Dutertre	14:30	Tafuri B	Interface Interactions Control in Lignocellulose Systems	Sergejs	Gaidukovs
15:00	Tafuri A	A Tale of Two Droplets: from Synthetic Cells to Biosensors	Siddharth	Deshpande	15:00	Tafuri B	Hybrid Particle-Field Coarse-Grained Models for Biointerfaces	Antonio	De Nicola
15:20	Tafuri A	Memory effect of red blood cells in a 3D microfluidic chip	Amirreza	Gholivand	15:20	Tafuri B	Elastoviscoplastic behaviour of model particle-laden interfaces	Alexandra	Alicke
15:40	Tafuri A	Magnetic-plasmonic nanoparticles for multimodal bioimaging and hyperthermia	Cristina	de la Encarnacion	15:40	Tafuri B	Exploring Surface Functionalisation Effects in Quantum Dot à Liquid Crystal Nanocomposites	Harry	Litt
16:00	Coffee break								
16:30	Tafuri A	Discussion with plenary speakers							
17:00	Posters and networking								
18:00	NCC meeting								
20:00	Dinner								



Annual Meeting 2022, Wednesday 18 May

Start time	Room	Title of contribution	Speaker first name	Speaker family name	Start time	Room	Title of contribution	Speaker first name	Speaker family name
09:00	Tafari A	Thermodynamics of excitatory membranes, and possible medical implications	Thomas	Heimburg	09:00	Tafari A	Thermodynamics of excitatory membranes, and possible medical implications	Thomas	Heimburg
10:00		Cofee break							
10:30	Tafari A	Topology and Dynamics: The Two Faces of the Mechanical Reinforcement in Crystallizable Polymers	Guilhelm	Baeza	10:30	Tafari B	Tuning and training of colloidal gels	George	Petekidis
11:00	Tafari A	Linear viscoelasticity of unentangled and entangled linear supramolecular chains with sticky side groups	Alexis	André	11:00	Tafari B	Characterisation of microgel particle-particle interactions with line optical tweezers	Jose	Muñetón Díaz
11:20	Tafari A	Distributed dynamics of grafted polymer chains: effect of molecular weight	Aakash	Sharma	11:20	Tafari B	Dynamic gels under controlled flow	Arnaud	Chaub
11:40	Tafari A	Origins of Viscoelasticity in Folded Protein Hydrogels	Anders	Aufderhorst-Roberts	11:40	Tafari B	Nd3+ - based NIR nanothermometers	Carlos	Renero - Lecuna
12:00		Lunch break							
13:30	Tafari A	Structuring colloidal systems by ultrasound-activated deformable inclusions	Valeria	Garbin	13:30	Tafari A	Structuring colloidal systems by ultrasound-activated deformable inclusions	Valeria	Garbin
14:30	Tafari A	The role of surface adhesion on the 2 macroscopic wrinkling of biofilms	Jan	Vermant	14:30	Tafari B	Polymerization-Induced Electrostatic Self-Assembly	Théo	Merland
15:00	Tafari A	Odd viscosity and active turbulence in a suspension of synchronous microrotors	Joscha	Mecke	15:00	Tafari B	Coarse-grained flexible model for bovine serum albumin	Frank	Hirschmann
15:20	Tafari A	UV induced degradation of nanoplastics in water	Gireeshkumar	Balakrishnan Nair	15:20	Tafari B	Effect of surface charges on the interactions and structure of star-like micelles	Lingsam	Tea
15:40	Tafari A	Biosurfactant mixed nanostructures for a new ecofriendly design of chemical formulations.	Rodolfo	Esposito	15:40	Tafari B	Silo discharge of mixtures of soft and rigid grains	Bo	Fan
16:00		Coffee break							
16:30	Tafari A	Discussion with plenary speakers							
17:00		Posters and networking							
18:00		NCC meeting							
20:00		Dinner							



Annual Meeting 2022, Thursday 19 May

Start time	Room	Title of contribution	Speaker first name	Speaker family name	Start time	Room	Title of contribution	Speaker first name	Speaker family name
09:00	Tafuri A	Modelling the dynamics of confluent cell layers	Julia	Yeomans	09:00	Tafuri A	Modelling the dynamics of confluent cell layers	Julia	Yeomans
10:00		Cofee break							
10:30	Tafuri A	Imaging moving wetting ridges on liquid-infused surfaces	Abhinav	Naga	10:30	Tafuri B	Tuning Protein Hydrogel Mechanics Through Modulation of Unfolding in Post-Gelation Relaxation	Matt	Hughes
11:00	Tafuri A	Exploiting multiple phase separation to stabilize water in water emulsions and form stable microcapsules	Yuwen	Meng	11:00	Tafuri B	The effect of temperature and particle size on the structural behaviour of particulate crosslinked gelatin-methacryloyl gels	Tess	De Maeseneer
11:20	Tafuri A	Controlling the three-dimensional shape of soft particles at fluid interfaces and how this affects their two-dimensional assembly	Jacopo	Violetto	11:20	Tafuri B	Numerical simulations of the stretching and leveling flows of freestanding axisymmetric viscoelastic liquid films	Davide	Amoroso
11:40	Tafuri A	Impact of Bulk Rheology of a Kappa-Carrageenan Gel on the Oil/Water Interface	Ahmad	Jaber	11:40	Tafuri B	Molecular Understanding of the Dynamics of Supramolecular Polymers across different Length Scales	Ana	Brás
12:00		Lunch break							
13:30	Tafuri A	On Simulations of Gels and Nanocomposites	Walter	Kob	13:30	Tafuri A	On Simulations of Gels and Nanocomposites	Walter	Kob
14:30	Tafuri A	A microfluidic approach for the characterization of the elongational behavior of a viscoelastic fluid	Andrea Iginio	Cirillo	14:30	Tafuri B	Ultrafast Remote Healing of Magneto-Responsive Thermoplastic Elastomer Based Nanocomposites	Pablo	Griffiths
14:50	Tafuri A	Structure and dynamics of polyelectrolytes in water solution	Ekaterina	Buvalaia	14:50	Tafuri B	Modeling and experiments of hydration in solvent-sealing of polymeric films	Giuseppe	Porpora
15:10	Tafuri A	Exploiting hydrogels and microbubbles for controlled drug release	Christa	Brown	15:10	Tafuri B	Rheological characterization of camphene-based capillary suspensions for bone implants fabrication	Souhaila	Nider
15:30	Tafuri A	Modelling Network Formation in Protein Hydrogels by Cluster Aggregation Kinetics	Kalila	Cook	15:30	Tafuri B	Enhancing the Dielectric Response of the 'Hidden' Secondary Relaxation in Polystyrene	Caitlin	Probert
15:50	Tafuri A	A new tool to measure second normal stress differences	Luca	Passaro	15:50	Tafuri B	Rheo-DLS investigation of the nonaffine dynamics of Soft Particle Glasses	Chiara	Marraffa
16:10		Coffee break							
16:40	Tafuri A	Discussion with plenary speakers							
17:30	Tafuri A	Closing remarks							
20:00		Dinner							



SoftComp
SOFT MATTER COMPOSITES



Oral presentations by date

Given name	Family name	Title	Date	Start time	Session
Marjolein	Dijkstra	Machine learning and inverse design of soft materials	17.05.2022	09:00	Plenary 1
Raffaele	Pastore	An experimental model of Fickian yet non-Gaussian Diffusion: colloidal tracers in heterogeneous light patterns	17.05.2022	10:30	Colloidal Soft Matter
Jose	Ruiz-Franco	Failure behavior in catch bond networks	17.05.2022	10:30	Polymeric Soft Matter
Eoin	Kearney	Coarse grained molecular dynamics simulations of passive partitioning of small molecules through cell membranes	17.05.2022	11:00	Colloidal Soft Matter
Massimiliano Maria	Villone	Deep learning-based non-intrusive detection of instabilities in formulated liquids	17.05.2022	11:00	Polymeric Soft Matter
Ekaterina	Kostyurina	Alternating amphiphilic polymers: from gels and micelles to translocation through lipid membranes	17.05.2022	11:20	Colloidal Soft Matter
Andreia	Silva	The ductile to brittle transition of proper fudge making	17.05.2022	11:20	Polymeric Soft Matter
Jiarul	Midya	Wrapping soft non-spherical vesicles at membranes	17.05.2022	11:40	Colloidal Soft Matter
Francesco	Rusciano	Understanding liquid fabric enhancers as soft colloidal glasses	17.05.2022	11:40	Polymeric Soft Matter
Francesco	Greco	Diffusion and Soft Glasses	17.05.2022	13:30	Plenary 2
Fabien	Dutertre	Chitosan-based hydrogels: Influence of crosslinking strategy on rheological properties	17.05.2022	14:30	Biospired Soft Matter
Sergejs	Gaidukovs	Interface Interactions Control in Lignocellulose Systems	17.05.2022	14:30	Topical: Soft Interfaces
Siddharth	Deshpande	A Tale of Two Droplets: from Synthetic Cells to Biosensors	17.05.2022	15:00	Biospired Soft Matter
Antonio	De Nicola	Hybrid Particle-Field Coarse-Grained Models for Biointerfaces	17.05.2022	15:00	Topical: Soft Interfaces

Given name	Family name	Title	Date	Start time	Session
Amirreza	Gholivand	Memory effect of red blood cells in a 3D microfluidic chip	17.05.2022	15:20	Biospired Soft Matter
Alexandra	Alicke	Elastoviscoplastic behaviour of model particle-laden interfaces	17.05.2022	15:20	Topical: Soft Interfaces
Cristina	de la Encarnacion	Magnetic-plasmonic nanoparticles for multimodal bioimaging and hyperthermia	17.05.2022	15:40	Biospired Soft Matter
Harry	Litt	Exploring Surface Functionalisation Effects in Quantum Dot â Liquid Crystal Nanocomposites	17.05.2022	15:40	Topical: Soft Interfaces
Thomas	Heimburg	Thermodynamics of excitatory membranes, and possible medical implications	18.05.2022	09:00	Plenary 3
Guilhelm	Baeza	Topology and Dynamics: The Two Faces of the Mechanical Reinforcement in Crystallizable Polymers	18.05.2022	10:30	Polymeric Soft Matter
George	Petekidis	Tuning and training of colloidal gels	18.05.2022	10:30	Colloidal Soft Matter
Alexis	André	Linear viscoelasticity of unentangled and entangled linear supramolecular chains with sticky side groups	18.05.2022	11:00	Polymeric Soft Matter
Jose	Muñetón Díaz	Characterisation of microgel particle-particle interactions with line optical tweezers	18.05.2022	11:00	Colloidal Soft Matter
Aakash	Sharma	Distributed dynamics of grafted polymer chains: effect of molecular weight	18.05.2022	11:20	Polymeric Soft Matter
Arnaud	Chaub	Dynamic gels under controlled flow	18.05.2022	11:20	Colloidal Soft Matter
Anders	Aufderhorst-Roberts	Origins of Viscoelasticity in Folded Protein Hydrogels	18.05.2022	11:40	Polymeric Soft Matter
Carlos	Renero - Lecuna	Nd ³⁺ - based NIR nanothermometers	18.05.2022	11:40	Colloidal Soft Matter
Valeria	Garbin	Structuring colloidal systems by ultrasound-activated deformable inclusions	18.05.2022	13:30	Plenary 4

Given name	Family name	Title	Date	Start time	Session
Jan	Vermant	The role of surface adhesion on the 2 macroscopic wrinkling of biofilms	18.05.2022	14:30	Processing Soft Matter
Théo	Merland	Polymerization-Induced Electrostatic Self-Assembly	18.05.2022	14:30	Polymeric Soft Matter
Joscha	Mecke	Odd viscosity and active turbulence in a suspension of synchronous microrotors	18.05.2022	15:00	Processing Soft Matter
Frank	Hirschmann	Coarse-grained flexible model for bovine serum albumin	18.05.2022	15:00	Polymeric Soft Matter
Gireeshkumar	Balakrishnan Nair	UV induced degradation of nanoplastics in water	18.05.2022	15:20	Processing Soft Matter
Lingsam	Tea	Effect of surface charges on the interactions and structure of star-like micelles	18.05.2022	15:20	Polymeric Soft Matter
Rodolfo	Esposito	Biosurfactant mixed nanostructures for a new ecofriendly design of chemical formulations.	18.05.2022	15:40	Processing Soft Matter
Bo	Fan	Silo discharge of mixtures of soft and rigid grains	18.05.2022	15:40	Polymeric Soft Matter
Julia	Yeomans	Modelling the dynamics of confluent cell layers	19.05.2022	09:00	Plenary 5
Abhinav	Naga	Imaging moving wetting ridges on liquid-infused surfaces	19.05.2022	10:30	Topical: Soft Interfaces
Matt	Hughes	Tuning Protein Hydrogel Mechanics Through Modulation of Unfolding in Post-Gelation Relaxation	19.05.2022	10:30	Polymeric Soft Matter
Yuwen	Meng	Exploiting multiple phase separation to stabilize water in water emulsions and form stable microcapsules	19.05.2022	11:00	Topical: Soft Interfaces
Tess	De Maeseneer	The effect of temperature and particle size on the structural behaviour of particulate crosslinked gelatin-methacryloyl gels	19.05.2022	11:00	Polymeric Soft Matter

Given name	Family name	Title	Date	Start time	Session
Jacopo	Vialetto	Controlling the three-dimensional shape of soft particles at fluid interfaces and how this affects their two-dimensional assembly	19.05.2022	11:20	Topical: Soft Interfaces
Davide	Amoroso	Numerical simulations of the stretching and leveling flows of freestanding axisymmetric viscoelastic liquid films	19.05.2022	11:20	Polymeric Soft Matter
Ahmad	Jaber	Impact of Bulk Rheology of a Kappa-Carrageenan Gel on the Oil/Water Interface	19.05.2022	11:40	Topical: Soft Interfaces
Ana	Brás	Molecular Understanding of the Dynamics of Supramolecular Polymers across different Length Scales	19.05.2022	11:40	Polymeric Soft Matter
Walter	Kob	On Simulations of Gels and Nanocomposites	19.05.2022	13:30	Plenary 6
Andrea Iginio	Cirillo	A microfluidic approach for the characterization of the elongational behavior of a viscoelastic fluid	19.05.2022	14:30	Young Scientists Session I
Pablo	Griffiths	Ultrafast Remote Healing of Magneto-Responsive Thermoplastic Elastomer Based Nanocomposites	19.05.2022	14:30	Young Scientists Session II
Ekaterina	Buvalaia	Structure and dynamics of polyelectrolytes in water solution	19.05.2022	14:50	Young Scientists Session I
Giuseppe	Porpora	Modeling and experiments of hydration in solvent-sealing of polymeric films	19.05.2022	14:50	Young Scientists Session II
Christa	Brown	Exploiting hydrogels and microbubbles for controlled drug release	19.05.2022	15:10	Young Scientists Session I

Given name	Family name	Title	Date	Start time	Session
Souhaila	Nider	Rheological characterization of camphene-based capillary suspensions for bone implants fabrication	19.05.2022	15:10	Young Scientists Session II
Kalila	Cook	Modelling Network Formation in Protein Hydrogels by Cluster Aggregation Kinetics	19.05.2022	15:30	Young Scientists Session I
Caitlin	Probert	Enhancing the Dielectric Response of the "Hidden" Secondary Relaxation in Polystyrene	19.05.2022	15:30	Young Scientists Session II
Luca	Passaro	A new tool to measure second normal stress differences	19.05.2022	15:50	Young Scientists Session I
Chiara	Marraffa	Rheo-DLS investigation of the nonaffine dynamics of Soft Particle Glasses	19.05.2022	15:50	Young Scientists Session II



SoftComp
SOFT MATTER COMPOSITES



Posters by date

Number	Given name	Family name	Title	Date	Start time	Session
1	Laura	Dal Compare	Stabilization of Smectic and Columnar Phases by Electrostatic Interactions	17.05.2022	17:00	Poster 1
2	Lily	Blaiset	Rheological and frictional behavior of soft particles	17.05.2022	17:00	Poster 1
3	Juan Roberto	Monllor Guerra	Testing the antimicrobial effect of Cellulose Nanocrystals (CNCs) in aqueous suspension against different Gram-negative bacteria	17.05.2022	17:00	Poster 1
4	Merin	Joseph	Tilings in ABC star block copolymers using Strong Segregation Theory	17.05.2022	17:00	Poster 1
5	Marco	Spinaci	A new approach to Coarse-Grained Modelling of Biological Polymers	17.05.2022	17:00	Poster 1
6	Dorota	Flak	Lipid nanoparticles with embedded gadolinium chelating lipids â potential contrast enhancers in Magnetic Resonance Imaging	17.05.2022	17:00	Poster 1
7	Denise	Li	Preliminary quantitative studies of the effect of surfactant or alcohol-based sanitisers on the surface properties of skin	17.05.2022	17:00	Poster 1
8	Lucja	Przysiecka	MnO-labelled lipid liquid crystalline as novel interesting and biocompatible contrast agent	17.05.2022	17:00	Poster 1
9	Eelco	Empting	Growth modes and orientational order in simulated thin film growth	17.05.2022	17:00	Poster 1
10	Zain	Ahmed	Facile design of complex structural color response by wrinkling of plasma-oxidised PDMS	17.05.2022	17:00	Poster 1
11	Surojit	Ranoo	One-pot synthesis of PNIPAM microgel for superior thermo-response	17.05.2022	17:00	Poster 1

Number	Given name	Family name	Title	Date	Start time	Session
12	Anna	Orlowska	HistoHIX: Universal image analysis tool applied to histopathology	18.05.2022	17:00	Poster 2
13	Alex	Newbold	Electrical Characterisation of Model Membrane Interfaces using Electrochemical Impedance Spectroscopy	18.05.2022	17:00	Poster 2
14	Zihan	Tan	An efficient multiparticle collision dynamics (MPC) approach to immiscible binary fluids: hydrodynamics and its application on membrane protein diffusion	18.05.2022	17:00	Poster 2
15	Rajendra Singh	Negi	Emergent collective behavior of active Brownian particles by visual perception	18.05.2022	17:00	Poster 2
16	Priyanka	Iyer	Non-equilibrium Shapes and Dynamics of Active Vesicles	18.05.2022	17:00	Poster 2
17	Jacek	Gapinski	Nanomolar Nitric Oxide Concentrations in Living Cells Measured by Means of Fluorescence Correlation Spectroscopy	18.05.2022	17:00	Poster 2
18	Roksana	Markiewicz	Hyaluronic-based hydrogels: preparation, characterization and drug delivery	18.05.2022	17:00	Poster 2
19	Caner	Akinci	Rheology of the PEG8KDMA/PEG100K binary solutions to use as advanced bioinks in 3D Printing	18.05.2022	17:00	Poster 2
20	Emanuele	Petretto	Monovalent ion-mediated charge-charge interactions drive aggregation of surface-functionalized gold nanoparticles	18.05.2022	17:00	Poster 2
21	Christina	Glaubitz	Supervised Machine Learning Predicts the Outcome of Nanoparticle Ultrasonication	18.05.2022	17:00	Poster 2
22	Chuanbao	Zheng	Modular design for proteins assembling into antifouling coatings: case of gold surfaces	18.05.2022	17:00	Poster 2