




XIX

ITALIAN SOCIETY OF
RHEOLOGY CONFERENCE
Bologna 16 ÷ 19 June 2026



SIR 2026

The image shows a large, dark-framed arched window. The window is divided into several panes. The central part is a large archway. Through the window, a panoramic view of Bologna, Italy, is visible under a bright blue sky with scattered white clouds. The city's characteristic red-tiled roofs and buildings are seen, along with the tall Asinelli tower in the distance. The text "SIR 2026" is overlaid in red on the lower part of the window view.

PROGRAM

Tuesday afternoon, June 16
plesso S.Giovanni in Monte, Bologna city centre

15:30 **Registration**

SIR General Assembly

18:00 **Opening Ceremony**

INVITED LECTURES

chairman :

18:10	keynote: From small deformations to breakup: Droplet dynamics in complex flows	P.L. Maffettone
18:50	keynote: Food Rheology of Multiphase Systems: From emulsions to Bigels	D. Gabriele

19:30 **WELCOME RECEPTION**

Wednesday morning, June 17
plesso Belmeloro, Bologna city centre

NETWORKS I

chairman :

8:45	keynote: Effect of polymer network architecture on rheological and long term adhesive properties of waterborne acrylic soft adhesives	C. Creton
9:30	HPMC thermogelling hydrogels: role of polymer structure and nanocrystals	C. Carotenuto
9:50	Rheological assessment of hydrogel printability for 3D bioprinting	L. Di Lisa
10:10	Inverse Quenching Enables Controlled 3D Printing of Gelatin/PEGDA Hydrogels	S. Costanzo
10:30	Polysaccharide-based hydrogels for mechanobiology	I. Donati
10:50	COFFEE BREAK	

COMPLEX FLOW & MULTIPHASE MATERIALS I

chairman :

11:20	A Fluid-Dynamics-based Analysis of Droplet Coalescence in Arburg Plastic Freeforming: a Case Study with Polycarbonate	R. Porcaro
11:40	Non-spherical particle dynamics in viscoelastic liquids in a microchannel with periodic flow inversion	G. D'Avino
12:00	Dynamics of compound vesicles in shear flow	A. Lamura
12:20	Soft Drops, Hard Impacts: Numerical Insights into Elastoviscoplastic Drop Dynamics	G. Esposito
12:40	Trains of soft particles in microchannels: from the dynamics of particle triplets to the identification of particle deformability through deep learning	M. Villone
13:00	LUNCH	

Wednesday afternoon, June 17

plesso Belmeloro, Bologna city centre

14:00 Poster Session

SUSPENSIONS & COLLOIDS

chairman :

15:00	Tunable Soft Materials: Linking Microscopic Structure to Macroscopic Rheological Response	F. Galluzzi
15:20	Frequency-Dependent Reversibility Thresholds in Dense Suspensions: Effect of Suspending-Fluid Polarity	M. Minale
15:40	Modelling and simulation of shear rotation data in dense suspensions	L. Santelli
16:00	Interplay between gelation and glass formation in silica nanoparticle colloids	G. Gerardi
16:20	COFFEE BREAK	

EXPERIMENTAL METHODS

chairman :

16:50	Evaluation of Quick Changes in Polymer Rheology Through High Frequency CHIRP on an SMT Rheometer	M. Coletti
17:10	Extensional Rheology of Polymer Melts on a Standard Instron Tensile Machine	A.T. Boborodea
17:30	Equibiaxial extensional rheology of crosslinked polymer networks	T. Guarino
17:50	LAOS of unfilled and filled rubbers: effect of crosslinking, filler, and polymer functionalization	S. Coppola

Thursday morning, June 18

plesso Belmeloro, Bologna city centre

MODELING

chairman :

8:45	keynote: Viscoelastic properties of physical networks: From chain branching to sticky junctions	E. van Ruymbeke
9:30	Lemmata and Solutions for Constrained Tensorial Constitutive Equations	A. Winters
9:50	Brownian dynamics simulations of unentangled polymer melts in shear flows	G. Ianniruberto
10:10	Emergence of elastic turbulence in viscoelastic fluids	E. De Angelis
10:30	Shear-Induced and Spontaneous Tumbling Dynamics in Confined Polymer Melts	L. Biancofiore
10:50	COFFEE BREAK	

BIOBASED SYSTEMS

chairman :

11:20	Viscoelastic Properties and Shear Flow Behaviour of Blood Plasma - Does a weak Structure exist?	T. Remmler
11:40	Multiscale Characterization of Native Mucus under Reducing Conditions	G. Franzino
12:00	Investigating bacteria-driven alginate hydrogel matrix degradation: a rheological framework to discriminate between crosslinker depletion and backbone cleavage	A. Fusari
12:20	Rheological transitions from bacterial suspensions to biofilms	D. Marra
12:40	Approaches for modelling and probing the rheology of sequence-programmable DNA materials	I.D. Stoev
13:00	LUNCH	

Thursday afternoon, June 18

plesso Belmeloro, Bologna city centre

NETWORKS II

chairman :

14:00	Entropic Phase Separation in Vitrimers Blends: Insights from Molecular Dynamics and Theory	G. Magyari
14:20	Annealing-Driven Network Organization in Model Polyisoprene Vitrimers	A. Russo
14:40	Rheology and structure of polystyrene based vitrimers and their blends in thermoplastic matrixes	L. Santori
15:00	On the scaling universality of the rheological properties at the gel point	M. Gottlieb
15:20	Evaluation of mesh size distribution in gels	M. Abrami
15:40	COFFEE BREAK	

COMPLEX FLOW & MULTIPHASE MATERIALS II

chairman :

16:10	Theoretical approach to the study of PEEK-PEI interaction in 3D printing of hybrid parts	A. D'Amore
16:30	Effects of Shear-Thinning Rheology on Flow in Rough Fractures	V. Di Federico
16:50	When Rheological Properties Control the Temperature (as much as the opposite)	G.P. Baeza
17:10	Morphological evolution of industrial polymer emulsions under shear flow	I. Perna

19:30 CONFERENCE DINNER

Villa Scarani, Bologna hills

Friday morning, June 19

plesso Belmeloro, Bologna city centre

INVITED LECTURE

chairman :

9:00	Special contributions in memory of prof. Luigi Nicolais	G. Marrucci, G. Mensitieri, P. Netti
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COMPOSITES

chairman :

9:50	Impact of porous particles on the rheological control of low-carbon cement paste	L. Ferrari
10:10	Study and Development of Reinforced Packaging Using Industrial Waste Materials	S. Aprile
10:30	The importance of network establishment in conductive polymer composites	L. Slemenik Perse
10:50	COFFEE BREAK	

COMPLEX FLOW & MULTIPHASE MATERIALS III

chairman :

11:20	Oil-Phase Structuring Agents as Key Modulators of Rheology, Texture and Tribological Performance in Water-in-Oil Cosmetic Emulsions	G. Tafuro
11:40	A Novel Approach to Characterizing Heterogeneity in Superhydrophobic Nanostructured Surfaces	R. Griffio
12:00	Shear and Extensional Rheology of Hair Care Products: Linking Formulation, Sensory Perception, and Industrial Processing	G. Darsy
12:20	Citrus fiber-soy protein emulgels for plant-based foods: a rheological characterization and modeling	E. Bruno
12:40	Correlation between cross-linking of the rubbery phase and aesthetic properties in ABS copolymers	D. Ferri
13:00	Closing Ceremony & LUNCH	

POSTERS

1	Entropic phase separation in vitrimer–polymer melts	A.A. Rispo Constantinou
2	Electric Stress on Soft Matter: Subcritical Dynamics of a Viscoelastic Sessile Drop	G. Esposito
3	From flow to form: Programming microstructures in additive manufacturing	G. Esposito
4	Agar-mediated green synthesis of noble metal nanoparticles: a combined structural and rheological study	M. Castellano
5	Influence of Superplasticizer’s Molecular Structure on the Rheology of low-carbon Mortars Incorporating Ceramic Waste	G. Raguso
6	Oblique Hydraulic Jumps in Power-Law Fluids: Combined Analytical, Experimental and Numerical Investigation	B. Rossi
7	Block copolymer concentration gradient at droplet interface inhibits coalescence in polymer blends	C. D’Auria
8	Improving interfacial properties of immiscible polymer with vitrimers	C. Spina
9	Viscosity Measurement and Predictive Modeling of Bio-Based Oxygenated Compounds: A Comparative Study of Entropy Scaling–PC-SAFT EOS and Free Volume Theory	I. Bahrabadi Jovein
10	Experimental Investigation on Intrusion in Cereal Bulks	M. Rizzo
11	A rheological study on thermoplastic and composite materials exposed to high-pressure hydrogen	L. Zamagni
12	Combining viscous relaxation with rate type equations for diffusion in polymers	R. Parchi
13	Rheo-Kinetics of Shear-Induced Gelation in Acrylate Polymer Latexes	M. Grosso
14	Impact of High Drug Loading on the Rheological and Mechanical Properties of Alginate Hydrogels	F. Briatico
15	Rheology as a novel tool to address the mechanical signature of time in the thymus	F. Briatico
16	A home-made coil viscometer for low viscosity, volatile liquids	S. Coppola
17	Multigrade oils enriched with graphene-related materials: characterization and performance in operating car engines	M. Minelli
18	Multiphase fluids in reduced gravity	S. Caserta
19	Characterizing Mechanical Fingerprints in Breast Cancer via In Vitro and Ex Vivo Models	S. Caserta
20	Searching for Hidden Scaling Laws through Artificial Polymer Mixtures	A. Mazzei
21	Characterization of volume relaxation time in solute-polymer mixtures at glass transition point	F. Doghieri
