



Sunday 26<sup>th</sup> August

14:00 – 19:00

REGISTRATION

### Tutorial Lectures

14:00 – 15:00	<b>Aurora Nogales</b> CSIC Madrid	<b><i>Introduction to dielectric relaxation</i></b> Case study: <i>performing 'bulk' experiments in nanoconfined systems</i>
15:00 – 16:00	<b>Silvina Cervený</b> Centro de Física de Materiales	<b><i>Dynamics of water</i></b> Case study: <i>molecular relaxation in aqueous solutions of synthetic and biological materials</i>
16:00 – 17:00	<b>Zaneta Wojnarowska</b> University of Silesia	<b><i>High pressure dielectric spectroscopy</i></b> Case study: <i>charge transfer in ionic glass-formers</i>
17:00 – 18:00	<b>Kristine Niss</b> Roskilde University	<b><i>Maxwell-Wagner polarization</i></b> Case study: <i>analysis of crystallization kinetics</i>

18:00 -19:00

WELCOME DRINK

Monday 27<sup>th</sup> August

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08:00 -

REGISTRATION

08:30 - 08:50

WELCOME SPEECH

### BDS in relation to other techniques 1

08:50 – 09:20

**Friedrich Kremer**  
University of Leipzig

*Dielectric spectroscopy with optical detection – a realistic perspective?*

09:20 – 09:40

**Aurélien Roggero**  
Université de Toulouse

*Broadband dielectric and thermally-stimulated electrochemical impedance spectroscopies for the analysis of organic coatings*

09:40 – 10:00

**Florian Pabst**  
TU Darmstadt

*Depolarized Dynamic Light Scattering of Ionic Liquids combined with Dielectric Spectroscopy*

10:00 – 10:30

**Alejandro Sanz**  
Roskilde University

*Simultaneous dielectric and scattering techniques in the temperature-pressure plane*

10:30 – 11:00

COFFEE BREAK

### BDS in relation to other techniques 2

11:00 – 11:20

**David Nieto Simavilla**  
Université libre de Bruxelles

*Kinetics of irreversible adsorption: thermodynamics vs molecular mobility*

11:20 – 11:40

**Tina Hecksher**  
Roskilde University

*What shear mechanics see that dielectrics doesn't: slow modes in glycerol and glycerol-water mixtures*

11:40 – 12:00

**Willhelm Kossack**  
University of Leipzig

*Infrared and dielectric spectroscopy to unravel the nature of the structural- and the secondary-relaxation in glycerol, threitol, xylitol and sorbitol*

### Terahertz Spectroscopy 1

12:00 – 12:30

**Boris Gorshunov**  
Moscow Institute of Physics

*Nano-confined water: from incipient ferroelectricity to ferroelectric relaxor behavior*

12:30 – 13:00

**Paul Ben Ishai**  
Ariel University

*Terahertz Spectroscopy – Great Expectations*

13:00 – 14:30

**LUNCH**

## Terahertz Spectroscopy 2

14:30 – 14:50

**Mohsen Sajadi**  
Fritz Haber Institute der MPG

*Non-linear THz spectroscopy of liquids*

14:50 – 15:10

**Keisuke Tominaga**  
Ariel University

*Broadband Dielectric Spectroscopy on Proteins and Lipid Bilayers from sub-GHz to THz region*

## Industrial applications 1

15:10 – 15:40

**Marian Paluch**  
University of Silesia

*Physical stability of amorphous drugs: the role of molecular mobility*

15:40 – 16:00

**Emeline Dudognon**  
Université de Lille

*Insights from dielectric spectroscopy on the physical states of an Active Pharmaceutical Ingredient reached by milling*

16:00 – 17:00

**COFFEE BREAK / POSTER SESSION**

## Industrial applications 2

17:00 – 17:30

**Madalena Dionisio**  
Universidade Nova de Lisboa

*Stabilizing high internal energetic states of pharmaceutical drugs by nanoconfinement*

17:30 – 17:50

**Natalia Correia**  
Université de Lille

*Influence of chirality on ibuprofen molecular dynamics and hydrogen bonding organizations*

17:50 – 18:10

**Roger Walker**  
Penn State University

*Impact of crosslinking and degassing on conductivity and morphology of polyethylene*

19:45 –

**EVENT FOR INVITED SPEAKERS**

Tuesday 28<sup>th</sup> August

## Young Researcher Session

08:30 – 08:42	<b>Thomas Gambino</b> Centro de Fisica de Materiales, MICHELIN	<i>Combined dielectric spectroscopy and neutron scattering study of a Polymer Blend as a Simplified Industrial System</i>
08:42– 08:54	<b>An-Sofie Huysecom</b> KULeuven	<i>Predicting the localization and interconnectivity of carbon nanotubes in compatibilized bi-phasic polymer blends</i>
08:54 – 09:06	<b>Bienvenu Atawa</b> UNIROUEN	<i>Molecular dynamics of chiral amorphous compounds: Original case study of Nac-MBA</i>
09:06 – 09:18	<b>Preeya Kuray</b> Pennsylvania State University	<i>Correlating the ionic conductivity and Morphology of Pendant and Backbone Polymerized Ionic Liquids</i>
09:18 – 09:30	<b>Achillefs Pipertzis</b> Univeristy of Ioannina	<i>Polythiophene-based polyelectrolytes from polymerized ionic liquids. Self-assembly and dc conduction</i>
09:30 – 09:42	<b>Sebastian Peter Bierwirth</b> TU Dortmund	<i>Coexistence of two structural relaxation processes in mixtures involving monohydroxy alcohols</i>
09:42– 09:54	<b>Arda Yildirim</b> BAM	<i>Molecular mobility and ionic conductivity of Ionic Liquid Crystals Forming a Hexagonal Columnar Mesophase</i>
09:54 – 10:06	<b>Anna Czaderna-Lekka</b> Lodz Univesity of Techonology	<i>The analysis of molecular relaxation in thermo-responsive polymer hydrogels</i>
10:06 – 10:18	<b>Jorge Melillo</b> Centro de Fisica de Materiales	<i>Dynamics of ice in ice nucleating protein (INP) solutions</i>
10:18 – 10:30	<b>Alessia Gennaro</b> KULeuven	<i>Surface imprinting surface characterization for cell detection by dielectric relaxation spectroscopy</i>

10:30 –11:00

COFFEE BREAK

## Nanoconfinement 1

11:00 – 11:30	<b>Koji Fukao</b> Ritsumeikan University	Asymmetric interfacial dynamics and glass transition in stacked thin polymer films
11:30 – 12:00	<b>Andreas Schönhals</b> BAM	Growth kinetics and molecular mobility of irreversibly adsorbed layers in thin polymer films

12:00 – 12:20	<b>Sherif Madkour</b> University of Leipzig	Mapping the Dynamic Heterogeneities in Thin Films of Miscible PVME/PS Blend by Nano-sized Relaxation and X-ray Spectroscopies
12:20 – 12:40	<b>Magdalena Tarnacka</b> University of Silesia	How does the vitrification of the interfacial layer affects the Molecular Dynamics of Glass-Formers at the Nanoscale? The Impact of Interactions
12:40 – 13:00	<b>William Hunter Woodward</b> The Dow Chemical Company	On the glass transition suppression of Polystyrene in SBS Rubber

13:00 –14:30

LUNCH

## Nanoconfinement 2

14:30 – 15:00	<b>Angel Alegría</b> Universidad del Pais Vasco	<i>Size effects on the segmental dynamics of sub 10-nm segregated polydimethylsiloxane</i>
15:00 – 15:30	<b>Karolina Adrjanowicz</b> University of Silesia	<i>Confinement induced changes in the Relaxation Dynamics and Crystallization Behavior of Glass-Forming Liquids</i>
15:30 – 16:00	<b>Daniele Cangialosi</b> CSIC	<i>Glass transition and molecular mobility by calorimetry in confined glasses</i>

16:00 –16:30

COFFEE BREAK

## Pressure and volume

16:30 – 16:50	<b>Ronald White</b> Dartmouth University	<i>The Cooperative Free Volume Rate Model for pressure dependent dynamics</i>
16:50 – 17:20	<b>Jane Lipson</b> Dartmouth University	<i>Relaxation in bulk and thin films: Insights using the Cooperative Free Volume Model</i>
17:20 – 17:50	<b>Kristine Niss</b> Roskilde University	<i>Mapping isobaric aging onto the equilibrium phase diagram</i>
17:50 – 18:20	<b>Daniel Fragiadakis</b> Naval Research Laboratory	<i>Isochronal superposition, density scaling and the nature of the <math>\beta</math> relaxation</i>
18:20 – 18:40	<b>Henriette Wase Hansen</b> Institut Laue-Langevin	<i>Isochronal superposition from picosecond to second investigated with simultaneous dielectric and neutron spectroscopy</i>

## Scaling of alpha and beta

08:30 – 09:00	<b>Ryusuke Nozaki</b> Hokkaido University	<i>Microscopic nature of <math>\beta</math> process of sugar alcohols</i>
09:00 – 09:30	<b>Kia Ngai</b> IPCF-CNR Pisa	<i>The JG <math>\beta</math>-relaxation / primitive relaxation never fail to show up in binary mixtures and polymer blends</i>
09:30 – 09:50	<b>Federico Caporaletti</b> Università di Trento	<i>Nuclear resonant scattering as microscopic probe for the Johari-Goldstein relaxation process in supercooled liquids</i>
09:50 – 10:10	<b>Shimon Lerner</b> JCT Lev Academic Center	<i>New link between structural and Johari-Goldstein Relaxation Parameters in Glass Formers</i>
10:10 – 10:30	<b>Pierre-Michel Dejardin</b> Université de Perpignan	<i>Linear and non-linear orientational correlation factors from the rotational Dean-Kawasaki equation</i>

10:30 – 11:00

COFFEE BREAK

11:00 – 11:30	<b>Alessio Zaccone</b> University of Cambridge	<i>Microscopic modelling of dielectric <math>\alpha</math> and <math>\beta</math> relaxation in glasses and orientationally disorder crystals based on Generalized Langevin Equations</i>
11:30 – 12:00	<b>Alexei Sokolov</b> University of Tennessee	<i>Qualitative change in temperature dependence of Structural Relaxation: Diverge or not Diverge</i>

## Soft Matter 1

12:00 – 12:30	<b>Ranko Richert</b> University of Arizona	<i>Control of Crystallization Outcomes in Molecular Glass-Formers by Electric Fields</i>
12:30 – 13:00	<b>Michael Wübbenhorst</b> KULeuven	<i>Competing order phenomena and peculiar crystallization kinetics of polyamide 12 as revealed by dielectric spectroscopy</i>

13:00 – 14:30

LUNCH

## Soft Matter 2

14:30 – 15:00

**Aurora Nogales**  
IEM-CSIC

*Relaxations and Relaxor-Ferroelectric-like Response of Poly(vinylidene fluoride) confined in cylindrical nanocavities*

15:00 – 15:20

**Christoph Grams**  
University of Cologne

*Soliton excitations in multiferroic  $\text{LiCuVO}_4$*

15:20 – 15:40

**Cristian Rodriguez-Tinoco**  
University of Silesia

*Further insights into vapour deposited ultrastable glasses from dielectric spectroscopy*

15:40 – 16:00

**Patricia Losada-Pérez**  
Université libre de Bruxelles

*Asymmetry liquid-liquid criticality in the refractive index and the dielectric constant coexistence curves*

16:00 – 16:30

**COFFEE BREAK**

## Soft Matter 3

16:30 – 16:50

**Małgorzata Jasiurkowska-Delaporte**  
Polish Academy of Sciences

*The interplay between crystallization and glass transition in nematic liquid crystal 2,7-bis(4-pentylphenyl)-9,9-diethyl-9H-fluorene (5P-EtFLEt-P5)*

16:50 – 17:10

**Josep Tamarit**  
Barcelona Research Center in  
Multiscale Science and  
Engineering

*Dynamics in weakly disordered solids*

17:10 – 17:40

**Joshua Sangoro**  
University of Tennessee

*Dynamics and ion transport in mesoscopic Structured Liquids*

## Non-linear

17:40 – 18:10

**Catalin Gainaru**  
TU Dortmund

*Nonlinear dielectric response beyond structural relaxation in glass-forming materials*

18:10 – 18:30

**François Ladieu**  
Université Paris-Saclay

*Third and fifth harmonic responses in liquids*

18:30 – 19:00

**Roland Böhmer**  
TU Dortmund

*Nonlinear electrical and rheological responses of glass formers*

19:30 –

**IDS Board Meeting**

Thursday 30<sup>th</sup> August

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## Polymer Dynamics 1

08:30 – 09:00	<b>George Floudas</b> University of Ioannina	<i>Effect of chain topology on segmental dynamics</i>
09:00 – 09:20	<b>Martin Tress</b> University of Tennessee	<i>Network formation and molecular dynamics in hydrogen-bonding telechelic polymers: a competition between association lifetime and structural relaxation</i>
09:20 – 09:40	<b>Stavros Drakopoulos</b> Loughborough University	<i>Understanding the evolution of entanglements upon the dielectric relaxations in dis-UHMWPE in the presence of Al<sub>2</sub>O<sub>3</sub> catalytic ashes</i>
09:40 – 10:00	<b>Daniel Martínez-Tong</b> Donostia International Physics Center	<i>Molecular dynamics of novel poly(pentamethylene 2,5-furanoate): Exploring a complete landscape of molecular dynamics and finding unexpected results</i>
10:00 – 10:30	<b>Silvina Cervený</b> Centro de Física de Materiales	<i>Dynamics of raw and vulcanized rubber. What can we learn from dielectric spectroscopy studies?</i>

10:30 – 11:00

**COFFEE BREAK**

## Polymer Dynamics 2

11:00 – 11:30	<b>Ivan Popov</b> Oak Ridge National Laboratory	<i>Straightening effect of the polymer chains around nanoparticles</i>
11:30 – 11:50	<b>Beatriz Robles-Hernández</b> Donostia International Physics Center	<i>Dramatic effect on the slower component topology on the matrix dynamics in polymer mixtures</i>
11:50 – 12:10	<b>Paulina Szymoniak</b> BAM	<i>Rigid amorphous phase in Nanocomposites as Revealed by Relaxation Spectroscopy</i>
12:10 – 12:40	<b>Shiwang Cheng</b> Michigan State University	<i>Analyzing the interfacial layer properties in nanocomposites by broadband dielectric spectroscopy</i>

12:40 – 14:10

**LUNCH**



## Water and Bio 1

14:10 – 14:40	<b>Yuri Feldman</b> The Hebrew University of Jerusalem	<i>Water and its dielectric signature. New markers for biosensing</i>
14:40 – 15:00	<b>Thomas Blochowicz</b> TU Darmstadt	<i>Depolarized Dynamic Light Scattering and Dielectric Spectroscopy: Two Perspectives on the Debye-Relaxation in Monohydroxy Alcohols</i>
15:00 – 15:20	<b>Sławomir Kołodziej</b> University of Silesia	<i>Advantages of examining alcohols containing a phenyl group by the means of Broadband Dielectric Spectroscopy</i>
15:20 – 15:40	<b>Sebastian Pawlus</b> University of Silesia	<i>How various strength of the H-bonds is reflected by relaxation dynamics of associated liquids</i>

18:30 –19:30

**CONCERT**

20:00 –23:00

**10<sup>TH</sup> ANNIVERSARY PARTY**  
**including the 2018 DEBYE PRIZE Awarding Ceremony**

Friday 31<sup>st</sup> August

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## Water and Bio 2

08:50 – 09:20	<b>Apostolos Kyrtsis</b> National Technical University of Athens	<i>Dynamics of hydration water in gelatin – hyaluronic acid hydrogels</i>
09:20 – 09:50	<b>Simone Capaccioli</b> Università di Pisa	<i>Dynamics of freeze-dried solvated proteins revealed by broadband dielectric spectroscopy</i>
09:50 –10:10	<b>Kamil Kaminski</b> University of Silesia	<i>Application of BDS to follow cis to trans isomerism in photoswitchable molecule Aberchrome 670</i>
10:10 –10:30	<b>Pedro Santos Prezas</b> University of Aveiro	<i>BDS and TSDC measurements on <math>\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2</math>, <math>\beta\text{-Ca}_3(\text{PO}_4)_2</math> and biphasic bioceramics</i>

10:30 –11:00

COFFEE BREAK

## Charge transport 1

11:00 – 11:30	<b>Zaneta Wojnarowska</b> University of Silesia	<i>Scaling behavior of electric conductivity and structural relaxation in supercooled ionic liquids</i>
11:30 – 11:50	<b>Bernard Mostert</b> Swansea University	<i>On protonic and electronic charge transport in eumelanin</i>
11:50 –12:10	<b>Arthur Markus Anton</b> University of Leipzig	<i>Charge transport and glassy dynamics in polymeric Ionic Liquids as reflected by its Inter- and Intramolecular Interactions</i>
12:10 –12:30	<b>Tyler Cosby</b> University of Tennessee	<i>Impact of mesoscale organization on charge Transport and Dynamics in Ionic Liquids</i>
12:30 –13:00	<b>Joshua Sangoro</b> University of Tennessee	<i>Dynamics and ion transport in mesoscopic Structured Liquids</i>

13:00 –14:30

LUNCH

14:30 –15:00

**Anatoli Serghei**  
University of Leipzig

*Coupled electrical/mechanical investigation on elastomeric composite materials*

15:00 –15:20

**Asma Triki**  
University of Sfax

*Dielectric properties of jute fibers reinforced Poly(lactic acid) / Poly(butylene succinate) blend*

15:20 –15:40

**Avanish Bharati**  
KULeuven

*BDS as a novel tool to probe phase separation in compatibilized polymer blends*

15:40 –

Closing Remarks