

4TH IBERIAN MEETING ON RHEOLOGY.
FUNDAMENTAL AND APPLIED RHEOLOGY (IBERO 2013)

MÁLAGA, SPAIN
SEPTEMBER 5–6, 2013

The 4th Iberian Meeting on Rheology was held in Málaga, Spain at the Escuela de Ingenierías, Universidad de Málaga, on September 5–6, 2013. Francisco J. Rubio-Hernández, Ana I. Gómez-Merino, Carlos del Pino, Luis Parras, José F. Velázquez-Navarro (Universidad de Málaga, Spain), Francisco J. Galindo-Rosales, Laura Campo-Deaño (Universidade do Porto), and Roberto Steinbrüggen (Instrumentos Físicos Ibérica, S.L.) organized this international Conference that focused on eight aspects of rheology (Biomaterials and Biopolymers; Food, Cosmetics and Pharmaceutical Products; Formulation and Product Engineering; Multiphase Systems and Composites; Non-Newtonian Fluid Mechanics; Polymers and Liquid Crystals; Rheometry and Experimental Methods; and Suspensions and Colloids). The Meeting convenes every two years being sponsored by the Grupo Español de Reología (GER) and the Sociedade Portuguesa de Reologia (SPR). Although it brings together the Portuguese and Spanish rheologists to present the latest advances and developments in rheology, it is open to researchers from any other nationalities. This is the reason why the official language of the conference is English. This year 97 participants from 40 organizations attended the event and 101 contributions were presented during the meeting, of which 36 were oral communications and 65 posters.

The oral presentations of non-Newtonian Fluid Mechanics and Polymers, and Liquid Crystals communications took place on Thursday morning. In these sessions it was shown the increasing interest on rheological applications in microfluidics in order to study biological flows such as blood in veins, or for the improvement in

micro-devices design, as the study of viscoelastic instabilities and its main role in turbulence onset in non-Newtonian flows. These studies also revealed a more prolific use of CFD as a complementary tool for traditional rheological studies. Dr. A. Morozov (University of Edinburgh) gave a plenary lecture on “Recent advances in transition to purely elastic turbulence in dilute polymer solutions”. He described the parallelism between the roles played by the Weissenberg and Reynolds numbers for laminar to turbulent transition in non-Newtonian and Newtonian fluids, respectively. During the afternoon Food, Cosmetics and Pharmaceuticals and Formulation and Product Engineering communications were delivered. These classical topics prove the main role of rheology in the design and optimization of different product formulations.

Friday morning was dedicated to Rheometry and Experimental Methods, and Biomaterials and Biopolymers. The new advances in experimental techniques were introduced, which dealt with the improvement of classical procedures (new ways to minimize interferences between sensors and samples as maximum as possible) and employment of several techniques in a same device or experiment to achieve a deeper knowledge in the relationship between the sample rheological behavior and its structural changes by means of optical or spectrometric measurements. Prof. Dr. P.F.G. Banfill was the plenary lecturer in this session. He reviewed the evolution of the methods to characterize the rheological behavior of fresh concrete which have culminated in the existence of a correlation with the rheological behavior of the corresponding mortar. His lecture, entitled

Figure 1 (left):
Ibero 2013 logo.

Figure 2:
Participants at the
IBERO 2013 on the
promenade in Málaga.



“Fresh concrete: a multi-phase, multi-scale composite” was sponsored by Italcementi Group. The presentation of Biomaterials and Biopolymers communications continued during the afternoon session, which finished with the presentation of Suspensions and Colloids communications. In these sessions, rheological and texture properties of gels, bio-gels, thickening and stabilizing agents and other current topics like magnetorheology and electrorheology were discussed.

The three best posters were awarded by Europhysics Letters, their rigorous content, originality, and design being considered as the criteria for the final decision. Also the SPR and GER awarded the two best Ph.D. theses on rheology that have been defended in Spain and Portugal for the last two years. During the conference gala dinner a tribute to Dr. Elvira Costell was paid: Dr. A. Santamaría, GER president “in an emotional ceremony” commended the professional career of Elvira Costell, GER vice president on the occasion of her recent retirement. She has been a pio-

neer of rheology in Spain with a great research production in food rheology and technology. Finally, Dr. T. Cidade, SPR president announced that the next IBEREO 2015 will take place in Coimbra, Portugal. She also unveiled the birth of a new electronic journal of rheology, e-rheo-iba, encouraging to include this journal among the means of dissemination of the results of research in rheology.

This 4th edition has convened more attendants than previous editions, with researchers from countries such as Brazil, Canada, Egypt, France, Germany, South-Africa, Southern-Korea, Turkey as well as from Spain and Portugal. We expect the convening power of the next meeting will be even larger, thanks to the interest that may arise in researchers from other countries.

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12TH SWISS SOFT DAYS (SSD 12)

BERNE, SWITZERLAND
OCTOBER 14, 2013

The 12th Swiss Soft Days Workshop has been held in Bern in the middle of October 2013. It has been a part of the series of workshops in the frame of Swiss Soft Days initialized by ETH Zurich in 2010. The interest of the community lies to unified scientist working in the field of Soft Matter in Switzerland. The society consists of physicist, chemists and biologists working in the topic of soft matter. The venue of this workshop was held at Bern University Hospital. Due to that fact the focus of the workshop was shifted into medical applications.

Rheology of Complex Systems. T. Kowalewski has opened the first session with an invited lecture on “Application of nanofibres for biomedical diagnostics and therapy” followed by four short talks given by N. Fernandez on “Microscopic mechanism for the shear-thickening of non-Brownian

suspensions”, P. Fischer on “Phospholipid bicelles to generate magnetically switchable material”, J.M. Habert on “Liquid-crystalline elastomer – nanoparticle hybrids with reversible switch of magnetic memory”, and by P.A. Rühls on “Bacterial hydrophobicity and biofilm formation at water-oil interfaces”.

Soft Matter in Medicine Session. The session was a special one where medical doctors from different disciplines of medicine were presenting issues related to the soft matter in rheumatology, emergency care, plastic surgery and nephrology. The session was opened by S. Reichenbach on “Arthrosis – when cartilage fails”, S. Jakob on “The use of colloid osmotic substances as blood plasma expanders”, M. Constantinescu on “Silicon implants – advantages and medical risks”, and by

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