

fied Huai Nyin Yow from the University of Leeds, UK, for the final round of YSA candidates. In her work the attention was put on colloidal dispersion stability. The capability of the LUMiSizer was documented for the characterization of rheological properties of suspensions with polymer decorated “smart” particles.

The prize was awarded to M.Sc student Shir R. Liber from Bar-Ilan University in Israel for her contribution “Dense colloidal fluids form denser sediments”. In her research the LUMiFuge was applied to relate the volume concentration of colloidal dispersions with the nature of their randomly packed solid sediments. The experimental data were reproduced by computer simulations [7].

The next International Workshop on Dispersion Analysis and Materials Testing will take place on 22 - 23 January 2015 in Berlin. On this occasion the Young Scientist Award 2015 will be launched.

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USER SEMINAR OF 2D AND 3D RHEOLOGY AND STABILITY OF DISPERSE SYSTEMS

POTSDAM, GERMANY

MAY 12–14, 2014

In May 2014 the 5th User Seminar on “2D and 3D Rheology and Stability of Disperse Systems” was organized in Potsdam. Anton Paar Germany GmbH (www.anton-paar.com), LUM GmbH (www.lum-gmbh.de), and SINTERFACE Technologies (www.sinterface.com) organized this event in a joint venture. Again the conference hotel “Am Templiner See” was used as it is well suited for workshops with about 50 participants. The workshop contained lectures on the fundamentals of surface science, colloidal systems, bulk rheology, and on the available experimental tools, which were given by

representatives of the organizing companies. Invited speakers from research groups at universities and in industry reported on various subjects relevant for the topics of the workshop. In addition, the participants took actively part in case studies, where they worked on practical situations engineers encounter in their daily work. As in the earlier workshops of this series the venue turned out to be a perfect location with all required services. All lectures were given in German because the participants were exclusively from Germany, Austria, and Switzerland.

This is an extract of the complete reprint-pdf, available at the Applied Rheology website <http://www.appliedrheology.org>

The seminars focused on surface (2D) and bulk (3D) rheology and on the stability of disperse systems (dispersion, emulsions). The introductory lectures on interfaces in general and 2D rheology was given by R. Miller (Potsdam), for dispersion stability and respective characterization methods by D. Lerche (Berlin). The bulk rheology in rotation and oscillation was presented by M. Schäffler (Ostfildern). Instrumentation of the three organizing companies was explained with practical hands-on by J. Krägel (Berlin), A. Uhl (Berlin), and B. Arlt (Ostfildern). Ch. Wurm (Ostfildern) analyzed the possibility of combining scattering and microscopy with rheometer systems. A number of good applications were presented by invited speakers from various places. K.-H. Jacob (Nuremberg) presented stability studies of crèmes investigated by rheology and centrifugation. Foodstuffs provide a wide range of matrices, where interfaces define and determine the rheological bulk behavior. Rheological studies of complex fluids in food processing were the topic of the contributions of further authors. J. Engmann (Lausanne) showed the role in characterizing the texture of food products and on the perception of consumers. M. Ranft (Ludwigshafen) focused his talk on the rheology of polymer dispersions and their applications.

N. Willenbacher (Karlsruhe) demonstrated the link between 2D and 3D rheology on the basis of studies with foams and emulsions. This liquid systems can be treated like materials, however, as they contain an enormous internal area, the bulk rheological behavior can be to a large extend controlled by the corresponding interfacial

rheology. The talk given by P. Fischer (Zurich) gave another example on the application of both interfacial and bulk rheology in food processing. St. Appel (Esslingen, earlier Osram GmbH Augsburg) reported on the characterization of suspensions by using an analytical centrifuge (LUMiFuge) for controlling the coating of fluorescent lamps by phosphorus. Via an in-situ visualization the separation behavior of the coating suspension criteria could be elaborated for a mass production. B. Senge (Berlin) gave an overview on structure formation in starch based systems, while A. Wierschem (Erlangen) showed that rheometers are also suitable to measure in thin layers. A. Schuch (Karlsruhe) focused on the application of rheology in process and product design. In addition to the many interesting talks a case study prepared by J. Engmann attracted the attention of all participants. In groups they were invited to solve an “every day” problem of process engineering taken from the field of food technology.

For the first time, the workshop material (copies of the presentations) was extended by a book edited by R. Miller, D. Lerche and M. Schäffler, entitled “Dispersionseigenschaften – 2D-Rheologie, 3D-Rheologie, Stabilität” (see Figure 1). This book is a kind of reflection of the workshop philosophy. It contains chapters for introduction into the fundamentals of interfaces, colloidal systems, stability of dispersions, 2D and 3D rheology, and several examples for the application of this knowledge. The book with 268 pages (note, it is written in German) has been published officially (ISBN 978-3-00-045864-4)



Figure 1: Participants of the 5th User Seminar on the dock before embarking the boat “Stadt Potsdam” for an excursion on the rivers and lakes of Potsdam.

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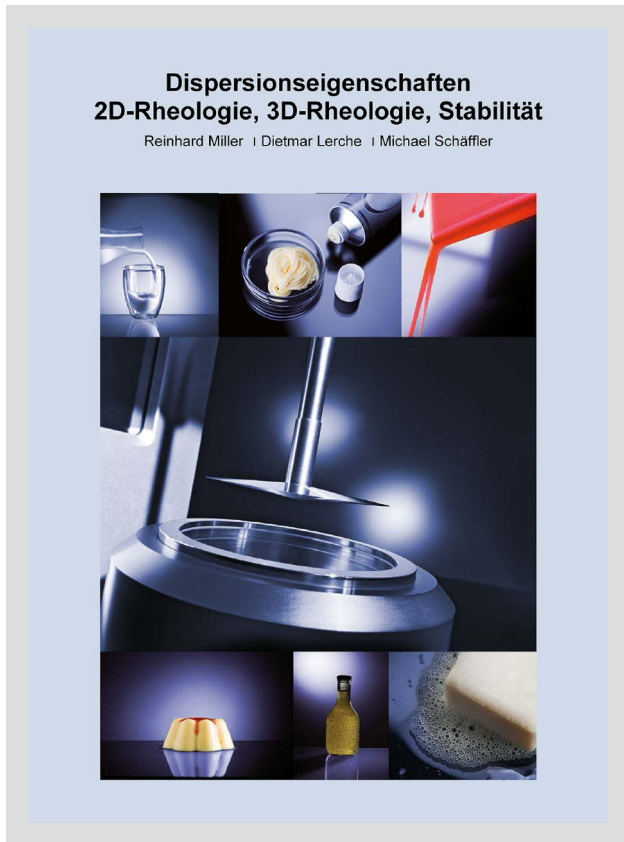


Figure 2: Book as workshop material.

and can be ordered from the organizers from autumn 2014 on (info@sinterface.de).

According to the participants' feedback the seminar of 2014 with its combination of theory and application was a great success. The evening program was a trip on a boat of the Weisse Flotte Potsdam (see Figure 2) along the rivers and lakes of Potsdam. It offered time for socializing and discussions. The next workshop of this series will be organized at the same place on May 4–6, 2015.

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