## The XVII<sup>th</sup> International Congress on Rheology (ICR 2016)

Куото, Japan August 8 – 13, 2016

The international congress on rheology has been held every four years as the largest event for rheologists worldwide, and the XVII<sup>th</sup> conference took place in Kyoto, Japan from August 8 to 13, 2016, following the XVI<sup>th</sup> event in Lisbon in 2012. The signboard with the logo is shown in Figure 1. The chairman was Hiroshi Watanabe, Kyoto University (see Figure 2) and I was one of the secretaries. The number of participants was 807 consisting of 521 regular registrations, 226 students and 60 accompanying persons. The schedule of conference is shown in Table 1. The entire program was organized in Kyoto Terrsa conference hall located nearby the Kyoto main station. Although the venue is within walking distance of the station, in the summer weather in Kyoto the way between hotels and the venue was totally uncomfortable. In addition, the organizing committee was not allowed to prepare shuttle bus service due to some restrictions of local government. The committee apologizes for the inconvenience of attendees.

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*Figure 1: Signboard at the entrance of the venue.* 

Figure 2: Hiroshi Watanabe, the conference chair, in his Samurai costume in the beer party at Uzumasa.

Following the tradition of the event, before the main conference we organized two short lecture courses, one for interfacial rheology delivered by Gerry Fuller from Stanford University and Jan Vermant from ETH Zurich, and the other for dynamics of soft-matters by Masao Doi from Beihang University and myself. The number of participants for the short courses was 25 (for interfacial rheology) and 22 (for soft-matter dynamics).

After the short course, the registration and reception of the main conference took place. The reception was financially supported by Kyoto Electronics Manufacturing, Co. which is a company in Kyoto developing

	Aug. 7 (Sun)	Aug. 8 (Mon)	Aug. 9 (Tue)	Aug. 10 (Wed)	Aug. 11 (Thr)	Aug. 12 (Frl)	Aug. 13 (Sat)
a.m.		10.041	Registration 9:00-	Regular	Poster Sessions	Regular Sessions 9:00-	Regular Sessions 9:00-12:30
	Courses C	Short	Regular Sessions 10:00-	Sessions 9:00-	9:00-11:20		
		Courses 10:30-12:00			-		
lunch					Excursion	-	Farewell Lunch
p.m.	Short Courses -17:00	ICR-2016 Registration 13:00-20:00	Regular Sessions -17:00	Regular Sessions -18:40	12:40-	Regular Sessions -17:00	-14:30
evening night		Reception 18:00-20:00	Beer Party 1	-16340	Beer Party 2 (at Kyoto Terma) 19:00-21:00	Congress	
			(et Uzumasa movié studio) 19:00-21:00			Dimmer (al Westin Miysko Hotel) 19:00-21:00	

Table 1: Schedule of the conference including the short courses.

Symposia	oral	*KN	poster
Materials Processing	16	2	6
Non-Newtonian Fluid Mechanics	57	7	13
Complex Flow/Deformation	15	1	10
Microfluidics	17	2	9
Homogeneous Polymeric Systems	33	3	2
Heterogeneous & Self-assembling Polymeric Systems	35	5	6
Computational Rheology	44	5	9
Dynamic/Static Gels and Rubbers	26	3	14
Suspensions, Colloids, and Granular Materials	59	7	25
Solids and Glasses	17	2	7
Surfactants, Emulsions, and Foams	20	2	9
Surface, Interface, and Thin Films	28	3	16
Experimental Method & Analysis	33	1	24
Bio-related Rheology	20	2	18
Food Rheology	13	1	11
Mechanics of Time-Dependent Materials	13	2	0
Industrial Rheology	25	2	6
General Rheology	25	- 2	11
TOTAL	496	52	196

Table 2: Technical sessions and number of papers (\*KN shows the number of keynote lectures in the oral presentations).

and manufacturing analytical and measuring instruments including rheometers. The conference materials such as the program, Japanese fan, USB memory drive containing the abstracts and some information for the social events were distributed to the participants with the conference bag purchased from a Kyoto local manufacturer (The bag caught the fancy of some attendees who asked us for a map to the shop to buy another one. Actually we sold around 10 bags on the last day of the conference.)

The main conference was opened with the opening ceremony followed by the plenary lecture by Jan Vermant. Including his lecture, we had 6 plenary lectures during the conference as listed below.

- J. Vermant (ETH Zurich, Switzerland) "Interfacial rheology: From the oil-field to the human cell"
- K. Tanaka (Kyushu University, Japan) "Relaxation behavior of polymer chains at solid interfaces"
- J. Brady (CalTech, USA) "Dynamics and rheology of active matter"
- D. Read (University Leeds, UK) "Binary blends of entangled polymers: When two seems many more than one"
- K. H. Ahn (Seoul National University, Korea) "A new perspective of materials processing: A rheologist's viewpoint"
- J. Pathak (NIH, USA) "Crowded globular protein and monoclonal antibody solution rheology in the bulk and at interfaces: An industry scientist's objective assessment of the current state of the field and unsolved problems"

There were 13 conference rooms in the venue and the sessions run in parallel. 18 mini-symposia were organized for the topics related to rheology. The number of papers in each symposium is listed in Table 2 for oral and poster presentations, apart from the plenary lectures mentioned above. The organizing committee appreciates the great contributions by the session organizers, chairs and presenters. The full-list of session organizers can be found in the conference webpage

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Figure 3: Masao Doi in his Vice-Shogun (known as Komon-sama in Japanese TV drama) costume in the beer party at Uzumasa.



Figure 5: Excursion in Hozu-gawa river.

(http://icr2016.com). It is noteworthy that as a sub-session of the computational rheology symposium, the session dedicated to Alexei Likhtman who tragically passed away in October 2015 was separately organized, and 21 oral papers (including 3 keynote lectures) and 3 poster papers were presented (these numbers are included in the numbers for computational rheology session in Table 2).

On the evening of Day 1 (August 9), by the financial support from TA Instruments, the beer party took place in TOEI Kyoto Studio Park in Uzumasa area. Following the Japanese drum playing, several local committee members (including H. Watanabe shown in Figure 1) and some known rheologists (mostly the mini-symposia organizers) welcomed the participants in Japanese traditional costumes like Samurai, Shogun, or Ninjya in the park in which typical scenery of Japanese town in Samurai period is reproduced. See Figure 4 for some of the costume players. On Day 3 (August 11), following the poster session in which around 200 papers were presented, the excursion was organized for 5 different sight-seeing tours with the operation of Kinki-Nippon-Tourist Co; The excursion tours were arranged as follows; Hozu-gawa River Rafting Tour (River Boat Ride), Uji Tourism and Hot Spring, Kyoto Basic Sightseeing, Kyoto Spiritual Sightseeing and Fushimi Tourism and Sake Tasting. Figure 5 shows the situation in the river boat tour. The excursion was followed by the beer party (at Kyoto Terrsa), both being supported financially by Anton Paar. On Day 4 (August 12) evening, the conference dinner took place in Westin Miyako hotel. At the ceremony the alternation of president and secretary of international committee on



Figure 4: Stading in Shogun style, E. van Ruymbeke in Princess dress and J. Vermant in Ninjya costume from left to right in the beer party at Uzumasa.



Figure 6: Geisha dancing in the conference dinner on August 12.

rheology was announced. Hiroshi Watanabe and Gerry Fuller has taken over the president and the secretary of international committee of rheology from Igor Emri and Manfred Wagner, respectively. After the ceremony the dinner was enjoyed with traditional Geisha dances (see Figure 6). The Geisha women migrated around the dinner tables for photo opportunities which greatly helped the mixing of attendees between different tables.

The organizing committee greatly appreciates the strong supports from private sector including the companies mentioned above for the financial support for the events. In addition to them, during the conference, we had several coffee breaks owing to the financial support by Malvern Co. The full-list of supporting companies can be found with their logos in the conference webpage. We also thank the companies which put up the display booths of their equipment and devices.

To conclude this report, on behalf of the organizing committee I would like to express our sincere appreciation to the contributions from all the attendees for whom we have collected a lot of photos during the conference. Many of those photos are available in the conference facebook and the other on-line services to which the links are available in the conference webpage (http://icr2016.com). We also thank the students running around the meeting rooms and our official agency Kintetsu International, Global Business Management Branch, led by Mr. Tomokazu Mizuno and Ms Rina Kano.

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