



RIBF 2018

1ST RAPPERSWIL INTERNATIONAL BONDING FORUM

Wednesday, 27th June 2018, 8 AM
in the Auditorium (Aula) at HSR University of Applied
Sciences Rapperswil, Switzerland



INSTITUTE FOR MATERIALS TECHNOLOGY
AND PLASTICS PROCESSING



HSR

UNIVERSITY OF APPLIED
SCIENCES RAPPERSWIL

FHO Fachhochschule Ostschweiz

1st Rapperswil International Bonding Forum

Invitation

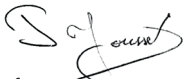
The RIBF 2018 conference focuses on bonding technology. The first event of this conference aims at bringing together engineers and researchers from the Industry, Engineering Schools and Universities, to exchange about the state of the art and the latest innovations in the field of bonding technology. The contents of the conference focuses on applied research and industrial applications.

RIBF 2018 focuses especially on the topics of joint design for industrial applications, mechanical properties of adhesive joints including experimental aspects and numerical studies, adhesion and surface treatments, quality procedures and standardisation.

With a program of 20 presentations followed by a visit of the lab facilities of our Institute, the IWK, the conference offers the possibility to discover the state of the art as well as the last innovations in the frame of bonding technology.

The conference language is English. Presentations will be held in English.

We look forward to welcoming you in Rapperswil.



Prof. Dr. Pierre Jousset
Head Joining Technology



Prof. Dr. Frank Ehrig
Head of Institute IWK

Conference venue

HSR University of Applied Sciences in Rapperswil
Oberseestrasse 10, CH-8640 Rapperswil, Switzerland

3 minutes by foot from Rapperwil's train station. Parking in the surrounding: at the Zoo (Knies Kinderzoo). Route map: <https://www.hsr.ch/de/kontakt-und-anfahrt/>

Timetable

- Conference start on 27th June: 8 AM
Building 4, 1st Floor: Aula/Auditorium
- Aperitifs on 26th and 27th June: 6 PM
Building 4, Ground Floor – main entrance – straight on to the Mensa – turn left to the Mensa's garden (26th June) turn right to room 4.006 A (27th June)

Conference Chairman / Contact

Prof. Dr. Pierre Jousset, Head Joining Technology
Phone: +41 (0)55 222 40 53, E-Mail: pierre.jousset@hsr.ch

IWK Institute for Materials Technology and Plastics Processing
Oberseestrasse 10, CH-8640 Rapperswil, Switzerland, www.iwk.hsr.ch

Conference Program

08:00	Registration/Welcome-Coffee	Aula Foyer, Building 4
	CONFERENCE OPENING	Aula, Building 4
08:30	Welcome and Introduction, conference program. Prof. Dr. Pierre Jousset, Event Host & Conference Chairman Head Joining Technology - IWK, HSR Rapperswil, Switzerland.	
	SESSION 1: INDUSTRIAL APPLICATIONS 1	Aula, Building 4
08:40	Design of an elastic bonded mould under high-temperature conditions for continuous casting of steel. S. Popovic ² , C. Corbisieri ² , D. Stapf ² , G. Barandun ² , P. Jousset ² , S. Feldhaus ¹ , O. Mathews ¹ (1): SMS Concast, Switzerland. (2): IWK, HSR Rapperswil, Switzerland.	
09:00	Two-component Epoxies with SmartCore Technology for Durable Bonding of Structural Components in Rail and Commercial Transportation Industry. C. Di Fratta ¹ , D. Hofstetter ² , M. Zivaljic ¹ , B. Bosshard ² (1) Sika Services AG, Zürich, Switzerland. (2) Sika Technology AG, Zürich, Switzerland.	
09:20	Thermomechanical behavior of metal-polyurethane bonded joints: application to the design of an industrial wheel. M. Ragni ¹ , D. Castagnetti ¹ , A. Spaggiari ¹ , E. Dragoni ¹ , M. Milelli ² , S. Girlando ² , P. Borgh ² (1): University of Modena and Reggio Emilia, Reggio Emilia, Italy. (2): Tellure Rôta S.p.A., Formigine, Italy.	
09:40	Structural bonding for lightweight vehicle design. A. Lutz, F. Koch, Dow Europe GmbH, Switzerland.	
10:00	Coffee Break The Foyer is located outside the Aula, on the same floor	Foyer, Building 4
	SESSION 2: MECHANICAL PROPERTIES - EXPERIMENTAL AND NUMERICAL STUDIES	Aula, Building 4
10:30	Finite Element simulation of delamination in bonded structures. Application to semiconductor production process optimization A. Marte ¹ , U. Berthold ² , U. Friederichs ² (1) KNS Switzerland. (2) CADFEM Switzerland.	
10:50	Adhesive testing and analysis - an effort towards systematic mode II fracture toughness values – application to the aeronautic industry. J. Jokinen ¹ , M. Wallin ² , M. Kanerva ¹ (1) Tampere University of Technology, Tampere, Finland. (2) Patria Aviation, Jämsä, Finland.	

11:10 **Structural Adhesive Bonding of Galvanized Steels: Performance before and after Hydrothermal Ageing.**

M. Nadlinger^{1,2}, L. Hader-Kregl¹, C. Kern³, M. Rosner³, R. Aichinger³, C. Hager-Roiser³,
M. Fleischanderl³, C. Paulik²

(1) CEST GmbH, Wiener Neustadt, Austria. (2) Johannes Kepler University, Linz, Austria.

(3) Voestalpine Stahl GmbH, Linz, Austria.

11:30 **Computer-aided design of joint connections on aluminum / CFK hybrid structures.**

R. Kallmeyer¹, T. Most¹, M. Kellermeyer², C. Witzgall³, S. Wartzack³

(1): Dynardo GmbH, Weimar, Germany. (2): Cadfem GmbH, Grafing, Germany.

(3): Lehrstuhl für Konstruktionstechnik Friedrich-Alexander-Universität, Erlangen-Nürnberg, Germany.

11:50 **Pure shear strength of aerospace adhesives at cryogenic and elevated temperatures.**

G. Blugan¹, J. Janczak-Rusch², J. Kuebler¹

(1): Laboratory for High Performance Ceramics. (2): Laboratory for Joining Technologies and Corrosion, EMPA: Swiss Federal Laboratories for Materials Science and Technology,

Dübendorf, Switzerland.

12:10 **Lunch Break**

The Foyer is located outside the Aula, on the same floor

Foyer, Building 4

SESSION 3: SYNTHESIS, FABRICATION PROCESS, APPLICATION AND SURFACE TREATMENT

Aula, Building 4

13:10 **Mixing Assessment Methodology for Dynamic Mixer in 2K Adhesive Application.**

S. Jafari, J. Schoeck, Sulzer Mixpac AG, Haag, Switzerland.

13:30 **LaserCleaning in CFRP Applications: Application to Surface Preparation for Bonding.**

J. Sommer, Clean-Lasersysteme GmbH, Germany.

13:50 **The Art of Adhesive Formulation to meet the requirements of specific industrial applications.**

C. Brändli, ZHAW, Winterthur, Switzerland.

14:10 **A standardized MEMS fabrication process including thin film eutectic bonding.**

P. Heeb, G. Weber, U. Lippuner

University of Applied Sciences Buchs, Buchs, Switzerland.

14:30 **New steps in 2-component structural bonding technology.**

D. Grosshans, Ashland.

14:50	Finite-Element Simulation of the fracture behavior of epoxy bonded joints C. Amstutz, P. Jousset, IWK, HSR Rapperswil, Switzerland	
15:10	Coffee Break The Foyer is located outside the Aula, on the same floor	Foyer, Building 4
	SESSION 4: INDUSTRIAL APPLICATIONS 2	Aula, Building 4
15:40	Automotive Assembly Bonding. K. Kresser, EFTEC AG, Romanshorn, Switzerland.	
16:00	Adhesively bonded connections in supporting structures of wind turbines. M. Albiez ¹ , H. Ehard ³ , S. Myslicki ² , T. Vallée ² , C. Schuler ³ , T. Ummerhofer ¹ (1): KIT Steel- und Lightweight Structures, Karlsruhe Institute of Technology, Germany. (2): Fraunhofer IFAM, Bremen, Germany. (3): Munich University of Applied Science, Germany.	
16:20	Industrial glueing applications using thermoplastic film technology. R. Hoppe, Pontacol AG, Schmitten, Switzerland.	
16:40	Butt Joint Bonding of Cross Laminated Timber. A. Themessl ¹ , M. Lehmann ¹ , S. Franke ¹ , D. Salzgeber ² (1): Bern University of Applied Sciences, BFH-AHB, Switzerland. (2): Henkel & Cie. AG, Switzerland.	
17:00	Innovative Power Cure Adhesive Systems and Their Possible Applications. J. Qu ¹ , D. Tobler ² (1) Sika Technology AG, Zürich, Switzerland. (2) Sika Services AG, Zürich, Switzerland.	
	CONFERENCE CLOSING	
17:20	End of conference, day's review, information about Lab's visit, Apéritif. Prof. Dr. Pierre Jousset, Event Host & Conference Chairman Head Joining Technology - IWK, HSR Rapperswil, Switzerland.	Aula, Building 4
17:30	Lab Visit: IWK Institute for Materials Technology and Plastics Processing. The IWK's lab is located in the building 2 of the HSR, on the second floor.	IWK, Building 2
18:00	APÉRITIF / NETWORKING The Mensa is located in the same building as the Aula (Building 4), on the groundfloor.	Mensa, Building 4



Registration

Online registration under <https://www.iwk.hsr.ch/index.php?id=18196>

One registration per person is required.

Registration fee: CHF 390.- per person.

The conference fee includes the proceedings with the list of abstracts (USB Stick), lunch, coffee-breaks, reception aperitif on 26th June 2018 and closing aperitif on 27th June 2018.

Deadline for the registration at the conference: 20th June 2018.

Cancelation Policy

In case of cancellation, a written notification should be sent to the conference chairman. If it is received prior to 20th June 2018, registration fees will be refunded with a deduction of CHF 100.-. No refund can be made after 20th June 2018.

We look forward to welcoming you in Rapperswil on the 27th of June 2018.

Exhibition stand

CHF 1000.- included a free entrance to the conference.

- With movable wall (w x h = 120x120 cm²) and table (l x w = 100x75 cm²)
- You can carry your own rollup-display

Please book your exhibition stand directly with the online registration. The number of exhibition stands is limited. Priority will be given to the first stands that have been registered. Deadline for the registration of an exhibition stand: 20th June 2018.

