



**STUTTGART**  
**NOVEMBER 21-22, 2024**

# PROGRAM

Textile Mechanical Engineering

Biobased Fibers

High Performance Fibers

Fiber Composites and Lightweight Construction

Circular Economy and Recycling

Medicine and Health

Functionalization and Finishing

Transfer Session “From Idea to Practice”

**PARTNER COUNTRIES:**  
BELGIUM, LUXEMBOURG,  
NETHERLANDS



# ABOUT THE TEXTILE CONFERENCE

## Dear Colleagues, Experts, Friends and Students,

we cordially invite you to the Aachen-Dresden-Denkendorf International Textile Conference on November 21–22, 2024 in Stuttgart.

We are happy to present you an inspiring program with top-class national and international contributors from industry and research.

### Parallel sessions addressing

- Textile Mechanical Engineering
- Biobased Fibers
- High Performance Fibers
- Fiber Composites and Lightweight Construction
- Circular Economy and Recycling
- Medicine and Health
- Functionalization and Finishing
- Transfer Session “From Idea to Practice”

### Plenary sessions addressing

- Circular Economy – Programs and agreements of the UN and the EU
- Innovative Fiber Architecture
- Research Focuses of the Partner Countries

### Partner countries: Belgium, Luxembourg and the Netherlands

Experts from the Benelux countries will provide a comprehensive insight into the textile industry and research in this year's partner countries with presentations and discussion contributions.

### Speakers

were recruited from science, associations and companies such as Brückner, Centexbel (Belgium), Empa (Switzerland), ETP – European Technology Platform for the Future of Textiles & Fashion (Belgium), Heraeus, Lindauer Dornier, Murata (Japan), ReHubs (EU – Belgium), Rieter (Switzerland), Saurer, Siemens, Teijin Aramid (Netherlands), Trützschler, TU Delft (Netherlands), Valmet (Finland), Volocopter/DLR

The lecture program will be complemented by about 100 scientific posters and an **exhibition**.

On behalf of the textile research institutions of the Aachen, Dresden and Denkendorf area, we would like to welcome all interested companies, research institutes, associations and students from around the world.

Prof. Dr. Götz T. Gresser  
for the organizers of the  
Stuttgart area

Prof. Dr. Chokri Cherif  
for the organizers of the  
Dresden area

Prof. Dr. Andreas Herrmann  
for the organizers of the  
Aachen area

# ÜBER DIE TEXTILKONFERENZ

**Sehr geehrte Kollegen, Experten, Freunde und Studierende,**  
wir laden Sie herzlich ein zur Aachen-Dresden-Denkendorf International  
Textile Conference am 21. und 22. November 2024 in Stuttgart.  
Wir freuen uns, Ihnen ein attraktives Programm mit herausragenden  
nationalen und internationalen Beiträgen aus Industrie und Forschung  
präsentieren zu können.

## Parallel Sessions zu den Themen

- Textilmaschinenbau
- Biobasierte Fasern
- Hochleistungsfasern
- Faserverbundwerkstoffe und Leichtbaukonstruktionen
- Kreislaufwirtschaft und Recycling
- Medizin und Gesundheit
- Funktionalisierung und Veredelung
- Transfersession „Von der Idee bis zur Praxis“

## Plenarvorträge zu den Themen

- Kreislaufwirtschaft – Programme und Rahmenvereinbarungen der UN und der EU
- Innovative Faserarchitekturen
- Forschungsschwerpunkte der Partnerländer

## Partnerländer: Belgien, Luxemburg und die Niederlande

Experten aus den Benelux-Staaten vermitteln mit Vorträgen und Diskussionsbeiträgen einen umfassenden Einblick in Textilindustrie und Forschung der diesjährigen Partnerländer.

## Vorträge

aus der Wissenschaft, Industrie und von Verbänden u.a. von Brückner, Centexbel (Belgien), Empa (Schweiz), ETP – European Technology Platform for the Future of Textiles & Fashion (Belgien), Heraeus, Lindauer Dornier, Murata (Japan), ReHubs (EU – Belgien), Rieter (Schweiz), Saurer, Siemens, Teijin Aramid (Niederlande), Trützschler, TU Delft (Niederlande), Valmet (Finnland), Volocopter/DLR

Das Vortragsprogramm wird ergänzt durch ca. 100 wissenschaftliche Poster und eine **Ausstellung**.

Im Namen der Textilforschungsinstitute der Regionen um Aachen, Dresden und Denkendorf begrüßen wir sehr herzlich interessierte Unternehmen, Forschungsinstitute, Verbände und Studierende aus aller Welt.

Prof. Dr. Götz T. Gresser  
für die Organisatoren  
der Region Stuttgart

Prof. Dr. Chokri Cherif  
für die Organisatoren  
der Region Dresden

Prof. Dr. Andreas Herrmann  
für die Organisatoren  
der Region Aachen

# OVERVIEW

**Thursday, November 21, 2024**

09:00-10:20

PLENARY SESSION 1 (page 6)

10:20-11:00

COFFEE BREAK

11:00-12:30

PARALLEL SESSIONS

Poster Lectures  
Textile mechanical  
engineering  
(page 7)

High-performance fibers  
(page 9)

Transfer session:  
From idea to practice  
(page 12)

12:30-13:45

LUNCH BREAK

13:45-15:15

PARALLEL SESSIONS

Textile mechanical  
engineering  
(page 7)

Biobased fibers  
(page 10)

Medicine and Health  
(page 13)

15:15-15:55

COFFEE BREAK

15:55-17:25

PARALLEL SESSIONS

Textile mechanical  
engineering  
(page 7)

Biobased fibers  
(page 10)

Circular economy  
and recycling  
(page 14)

19:30

CONFERENCE DINNER  
ALTE REITHALLE / MARITIM HOTEL  
(ADMISSION: 19:00)  
(page 27)

# OVERVIEW

**Friday, November 22, 2024**

09:00-10:30

PLENARY SESSION 2 (page 15)

10:30-11:10

COFFEE BREAK

11:10-12:40

PARALLEL SESSIONS

Fiber composites  
and lightweight  
construction  
(page 16)

Circular economy  
and recycling  
(page 18)

Functionalization  
and finishing  
(page 20)

12:40-13:45

LUNCH BREAK

13:45-15:15

PARALLEL SESSIONS

Fiber composites  
and lightweight  
construction  
(page 16)

Circular economy  
and recycling  
(page 18)

Functionalization  
and finishing  
(page 20)

15:15

END OF THE EVENT

# THURSDAY, NOVEMBER 21, 2024

## PLENARY SESSION

HEGEL HALL

### OPENING AND GREETING

09:00 **Michael R. Buchmeiser**

Chairman of Executive Board, Deutsche Institute für Textil- und Faserforschung Denkendorf (DITF)

09:10 **State Secretary Patrick Rapp**

Ministry of Economic Affairs, Labour and Tourism Baden-Württemberg

### KEYNOTES

09:20 **Jan Laperre**

*Centexbel, Zwijnaarde, Belgium*

Innovation as a driver for sustainable business: the Belgian case

09:50 **Clemens Dransfeld**

*TU Delft, Delft, Netherlands*

The impact of fibre architectures on sustainable aviation

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

HEGEL HALL

11:00 Poster short talks

### Textile Mechanical Engineering

11:30 **Monika Oleksy**

*Aachen-Maastricht Institute for Biobased Materials (AMIBM),  
Maastricht University, Geleen, Netherlands*

Micro-Batch-Spinner: A solution for testing the spinnability of new biopolymers

11:50 **Sarah Pogrzeba, Madina Shamsuyeva, Hans-Josef Endres**

*IKK Institute of Plastics and Circular Economy,  
University of Hannover, Hannover*

Potential and bottlenecks of mechanical recycling of textile blends

12:10 **Jonathan Linthout, Christine Woerner**

*Uster Technologies AG, Uster, Switzerland  
USTER AFIS Pro 2, Guidelines for testing recycled cotton fibers*

12:30 **Lunch Break**

13:45 **Uwe Rondé**

*Saurer Spinning Solutions GmbH & Co. KG, Fellbach*

Automation and robotics in textile industry – Improving cost efficiency and ergonomics (keynote)

14:15 **Luisa Verboeket, Lukas Lechthaler, Steffen Peters, Ralf Müller**

*Trützschler Group SE, Mönchengladbach*

Classification of raw material components in mechanical textile recycling and their processability in carding

14:35 **Gernot Schäffler**

*Wilhelm Stahlecker GmbH/Rieter, Suessen*

COMPACTapron – New 3D compacting technology for entirely compacted fibers

14:55 **Akitsugo Mori**

*Murata Machinery Ltd., Kyoto, Japan*

Filament Core Yarn device in VORTEX spinning may give a chance to sustainability and new spinning style

15:15 **Coffee Break**

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

HEGEL HALL

### TEXTILE MECHANICAL ENGINEERING

16:00 **Andreas Troscheit**

*Brückner Textile Technologies GmbH & Co. KG, Leonberg*

Reduced ecological impact and cost by optimised textile processing based on virtual simulation (keynote)

16:30 **Jörg Kroschinski**

*Siemens AG, Digital Industries, Chemnitz*

Condition-monitoring is going to next level through AI

16:50 **Dominique Baldeck**

*Itema, Colzate, Italy*

EVOlution in weaving: transforming trends into reality

17:10 **Axel Bral<sup>1</sup>, Lode Daelemans<sup>2</sup>, Joris Degroote<sup>1,3</sup>**

<sup>1</sup> *Department of Electromechanical, Systems and Metal Engineering, Ghent University; Ghent, Belgium*

<sup>2</sup> *Department of Materials, Textiles and Chemical Engineering, Ghent University; Ghent, Belgium*

<sup>3</sup> *Flanders Make @ UGent – Core lab MIRO, Ghent, Belgium*

Towards a computationally efficient method to simulate the interactions between air jets and hairy yarns

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

SCHILLER HALL

### High-Performance Fibers

11:00 **Rudolf Hufenus**

*Empa, St. Gallen, Switzerland*

Melt-spun liquid-core filaments for microhydraulic applications  
(keynote)

11:30 **Manuel Ettmüller, Walter Arne**

*Fraunhofer ITWM, Kaiserslautern*

Advancements in modeling and simulation for fiber melt spinning

11:50 **Mohsen Sadeghi Bogar<sup>1,2</sup>, Robert Seidel-Greiff<sup>1,2</sup>,**

**Paul Bertram<sup>2,3</sup>, Irina Kuznik<sup>2,3</sup>, Thomas Behnisch<sup>1,2</sup>,**

**Chokri Cherif<sup>2,3</sup>, Maik Gude<sup>1,2</sup>**

<sup>1</sup> *Institute of Lightweight Engineering and Polymer Technology (ILK), TUD Dresden, Dresden*

<sup>2</sup> *Research Center Carbon Fibers Saxony (RCCF), TUD Dresden, Dresden*

<sup>3</sup> *Institute of Textile Machinery and High Performance Material Technology (ITM), TUD Dresden, Dresden*

Tailored porous carbon fiber production for sustainable energy storage

12:10 **Elena Kosareva, Stephen Paskaluk, Jane Batcheller**

*Department of Human Ecology, University of Alberta, Edmonton, Alberta, Canada*

Improved thermal protective clothing design for wildland firefighters with 3D spacer fabric incorporated into areas prone to burn injury

12:30 **Lunch Break**

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

SCHILLER HALL

### Biobased Fibers

- 13:45 **Daniela Colevati Ferreira<sup>1</sup>, José Matos<sup>1</sup>, Paula Oliveira<sup>1</sup>, Pedro Gonçalves<sup>1</sup>, Rita Valério<sup>1</sup>, Thalita Damaceno<sup>1</sup>, Nelson Durães<sup>1</sup>, Lúcia Rodrigues<sup>2</sup>, Catarina Guise<sup>2</sup>, Carla Silva<sup>2</sup>, Mihaela Postoronca<sup>3</sup>, Samuel Peres<sup>3</sup>, Raquel Almeida<sup>3</sup>, Pedro Loureiro<sup>4</sup>, João Martins<sup>4</sup>, Gabriel Sousa<sup>4</sup>, Fábio Bernardo<sup>5</sup>, Dmitry Viktorovitch Evtuguin<sup>5</sup>**

<sup>1</sup> CeNTI – Centre for Nanotechnology and Smart Materials. Vila Nova de Famalicão, Portugal

<sup>2</sup> CITEVE – Technological Centre for Portugal's Textile and Clothing Industries. Vila Nova de Famalicão, Portugal

<sup>3</sup> Caima S.A., Constância, Portugal

<sup>4</sup> Altri. Rua Manuel Pinto de Azevedo, Porto, Portugal

<sup>5</sup> University of Aveiro. Campus Universitário de Santiago, Aveiro, Portugal

Bioeconomy at textiles – strategic approach to produce man-made cellulosic fibres (keynote)

- 14:15 **Hartmut Hangen<sup>1</sup>, Fabio Bußmann<sup>2</sup>**

<sup>1</sup> HUESKER Synthetic GmbH; Gescher

<sup>2</sup> Institut für Textiltechnik of RWTH Aachen University (ITA), Aachen  
Bio-based woven geotextiles with customised degradability

- 14:35 **Anke Mondschein<sup>1</sup>, Agnès Thomasset<sup>2</sup>, Michaela Schröpfer<sup>1</sup>, Delphine Bégué<sup>2</sup>**

<sup>1</sup> FILK Freiberg Institute gGmbH, Freiberg

<sup>2</sup> ITECH Lyon, Écully, France

Investigations on alternative materials: Processing trials for cross-linking and coating of mycelium fibre material

- 14:55 **Ahmad Ibrahim<sup>1</sup>, Valério Izquierdo<sup>1</sup>, Patricia Forcier<sup>1</sup>, Ghyslain Bouchard<sup>2</sup>, Justine Decaens<sup>1</sup>, Olivier Vermeersch<sup>1</sup>**

<sup>1</sup> Groupe CTT, Saint-Hyacinthe, Québec, Canada

<sup>2</sup> Eko-Terre, Cowansterre, Québec, Canada

Hollow fibers for better efficiency for insulation under compression:  
Milkweed Fibers

- 15:15 **Coffee Break**

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

SCHILLER HALL

### Biobased Fibers

16:00 **Pavan Kumar Manvi, Bineke Posthumus**

*Avantium Renewable Polymers B.V., Amsterdam, Netherlands*

Opportunities for Polyethylene Furanoate (PEF) in the textile industry  
(keynote)

16:30 **Boris Marx, Lars Bostan, David May**

*Faserinstitut Bremen e.V., Bremen*

Melt spinning of stereocomplex-PLA-yarns on technical scale

16:50 **Catarina Guise, Marta A. Teixeira, Raquel Gonçalves,**

**Inês Leite, Helena Vilaça, Teresa Luísa Silva, Carla Silva**

*CITEVE – Technological Centre for Portugal's Textile and Clothing Industries, Vila Nova de Famalicão, Portugal*

Production of fibers, coatings and/or non-woven fabrics based on PHAs through alternative technologies

17:10 **Johanne Neuhof, Lars Bostan, Boris Marx, Axel Herrmann**

*Faserinstitut Bremen e.V., Bremen*

Fibers made of Poly(lactid acid) and Poly(butylene succinate) blends

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

SILCHER HALL

### Transfer Session: From Idea to Practice

11:00 **Johannes Diebel**

*Forschungskuratorium Textil e.V., Berlin*

Sustainability in the textile and fashion industry (keynote)

11:30 **André Matthes, Yamí Quiroga, Holger Cebulla**

*University of Technology Chemnitz, Chemnitz*

textil trainer 2.0 – Individualization of digital training in textile companies

11:50 **Renate Fourné<sup>1</sup>, Hendrik Florian Pötzsch<sup>2</sup>, Benedikt Rupp<sup>2</sup>,**

**Dilbar Aibibu<sup>2</sup>, Chokri Cherif<sup>2</sup>**

<sup>1</sup> *Fourné Maschinenbau GmbH, Alfter-Impekoven*

<sup>2</sup> *Institute of Textile Machinery and High Performance Material Technology, Dresden*

Flexible and modular texturizing technology for temperature- and shear force-sensitive natural biopolymer yarns

12:10 **Karin Ratovo<sup>1</sup>, Hildegard Schunk<sup>2</sup>, Kristina Klinkhammer<sup>1</sup>,**

**Esther Rohleder<sup>1</sup>, Alexander Büsgen<sup>1</sup>, Balduin Schunk<sup>2</sup>,**

**Christian Eckstein<sup>3</sup>, Robert Groten<sup>1</sup>, Christine Steinem<sup>1</sup>**

<sup>1</sup> *Forschungsinstitut für Textil und Bekleidung der Hochschule Niederrhein, Mönchengladbach*

<sup>2</sup> *bs-metalltechnik GmbH, Aachen*

<sup>3</sup> *Elektro Eckstein GmbH & Co. KG, Aachen*

Development of a textile reinforced roller shutter system to protect single- and multi-family houses in the event of flooding

12:30 **Lunch Break**

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

SILCHER HALL

### Medicine and Health

13:45 **Kevin Braun**

*Molecular Plasma, Luxembourg, Luxembourg*

Virucidal plasma coating on fabrics – From idea to industrial solution in 1 year (keynote)

14:15 **Leopold Frankenbach<sup>1</sup>, Christoph Müller<sup>2</sup>, Hannes Seidler<sup>2</sup>, Katarina Gille<sup>2</sup>, Taty Onggar<sup>1</sup>, Thomas Zahnert<sup>2</sup>, Marcus Neudert<sup>2</sup>, Chokri Cherif<sup>1</sup>**

<sup>1</sup> Institut für Textilmaschinen und Textile Hochleistungswerkstofftechnik an der Technischen Universität Dresden, Dresden

<sup>2</sup> Medizinische Fakultät und Universitätsklinikum Carl Gustav Carus an der Technischen Universität Dresden, Klinik und Poliklinik für Hals-, Nasen- und Ohrenheilkunde, Ear Research Center Dresden, Dresden  
Investigations on the design and the characteristics of an innovative textile fiber-based multi-electrode array manufactured by means of melt spinning

14:35 **Dawson Cagle**

*IARPA, Washington, DC, USA*

Fashioning the future of advanced Smart Textiles for healthcare

14:55 **Gökçe Sakmar<sup>1</sup>, Murat Yıldırım<sup>2</sup>, Levent Öztürk<sup>3</sup>, Gizem Özbeğ Çam<sup>4</sup>, Mustafa Irer<sup>5</sup>**

<sup>1</sup> Zorluteks Textile Trading and Industry Inc. R&D Center, Kırklareli, Turkey

<sup>2</sup> Zorluteks Textile Trading and Industry Inc. R&D Center, Kırklareli, Turkey

<sup>3</sup> Trakya University Faculty of Medicine, Edirne, Turkey

<sup>4</sup> Zorluteks Textile Trading and Industry Inc. R&D Center, Kırklareli, Turkey

<sup>5</sup> Techmax Technology Inc., İzmir, Turkey

Development and integration of a mattress cover, capable of analyzing body movement and sleep quality measurement with conductive textile-based sensors

15:15 **Coffee Break**

# THURSDAY, NOVEMBER 21, 2024

## PARALLEL SESSION

SILCHER HALL

### Circular Economy and Recycling

16:00 **Edith Claßen**

*Hohenstein Innovations gGmbH, Bönnigheim*

How can standardization support the textile industry to promote and bring sustainable and circular products in the market? (keynote)

16:30 **Marte Hentschel<sup>1</sup>, Dieter Stellmach<sup>2</sup>**

<sup>1</sup> VORN eG, Berlin

<sup>2</sup> Deutsche Institute für Textil- und Faserforschung Denkendorf (DITF), Denkendorf

Ready for Circular Economy? Self-assessment and training services for the textile enterprises

16:50 **Tobias Herzog**

*Tailorlux GmbH, Münster*

Methods of quantification of recycled content in fabrics and yarns with inorganic tracers

17:10 **Stefan Schlichter**

*Technische Hochschule Augsburg, Augsburg*

Innovations Community CirTex – A path towards textile circular economy

# **FRIDAY, NOVEMBER 22, 2024**

## **PLENARY SESSION**

HEGEL HALL

**09:00 Reinhold W. Lang**

*Institute of Polymeric Materials and Testing (IPMT), Johannes Kepler University Linz (JKU), Linz, Austria*

Perspectives for a sustainable and climate-neutral “all-circular” plastics & carbon economy – The UN Agenda 2030 and the UN Framework Convention on Climate Change in context

**09:30 Chris Deloof**

*ReHubs, Brussels, Belgium*

ReHubs – Moving the European textile and fashion industry fast forward on textile waste recycling

**10:00 N.N.**

*European Commission, Brussels, Belgium (requested)*

EU policy towards the circular (textile) economy

**10:30 Coffee Break**

# **FRIDAY, NOVEMBER 22, 2024**

## **PARALLEL SESSION**

HEGEL HALL

### **Fiber Composites and Lightweight Construction**

11:10 **Stefan Herzog<sup>1</sup>, Paul Ebel<sup>2</sup>**

<sup>1</sup> *Volocopter GmbH, Bruchsal*

<sup>2</sup> *Deutsches Zentrum für Luft und Raumfahrt e.V. / German Aerospace Center (DLR), Stuttgart*

3D Woven composites for aeronautical applications (keynote)

11:30 **Philipp Huber<sup>2</sup>, Britta Sköck-Hartmann<sup>1</sup>, Sarah Thirion<sup>2</sup>, Thomas Gries<sup>2</sup>**

<sup>1</sup> *Lindauer Dornier GmbH, Lindau*

<sup>2</sup> *Institut für Textiltechnik der RWTH Aachen University, Aachen*  
Characterisation and empirical design of 3D-woven CFRP

11:50 **Jody Turner**

*AMRC Composite Centre, University of Sheffield, Sheffield, United Kingdom*

Yarn-ectomy – Overcoming fabrication barriers with automated yarn removal

12:10 **Michael Goretzky, Andrea Lipp-Allrutz**

*TEXOVERSUM School of Textiles, Reutlingen University, Reutlingen  
TEXOVERSUM – Space for creativity/Visions for mobility solutions – digital, real and sustainable!?*

12:40 **Lunch Break**

# **FRIDAY, NOVEMBER 22, 2024**

## **PARALLEL SESSION**

HEGEL HALL

### **Fiber Composites and Lightweight Construction**

**13:45 Bastien Turbot, François Rault, François Boussu**

*Université Lille, ENSAIT, GEMTEX – Génie et Matériaux Textiles,  
Lille, France*

Innovative composites materials for automotive damping: a focus on auxetic properties (keynote)

**14:15 Marta Midão<sup>1</sup>, Cíntia Martins<sup>1</sup>, José Dias<sup>1</sup>, Patrícia Gonçalves<sup>1</sup>,  
Cristina Oliveira<sup>2</sup>, Beatriz França<sup>2</sup>, Pedro Silva<sup>3</sup>, Helena Silva<sup>3</sup>**

<sup>1</sup> CeNTI – Centre for Nanotechnology and Smart Materials, Vila Nova de Famalicão, Portugal

<sup>2</sup> Citeve – Technological Centre for the Textile and Clothing Industry, Vila Nova de Famalicão, Portugal

<sup>3</sup> TMG Textiles, Vila Nova de Famalicão, Portugal

Development and integration of functional and smart fibres in Smart Textiles for improving visibility and safety for two-wheeler drivers

**14:35 Laura Klis, Christian Bonten**

*Institut für Kunststofftechnik, Stuttgart University, Stuttgart*

Opportunities, applications and developments in reactive thermoplastic pultrusion

**14:55 Halyna Brämer, Luisa Medina**

*Hochschule Kaiserslautern, Applied Logistics and Polymer Sciences,  
Department of Textile Engineering, Kaiserslautern*

Potential of basalt as a high-performance fibre for the hybridisation of natural fibre composites

# **FRIDAY, NOVEMBER 22, 2024**

## **PARALLEL SESSION**

SCHILLER HALL

### **Circular Economy and Recycling**

**11:10 Lutz Walter**

*Textile ETP, Brussels, Belgium*

EU research for textile sustainability & circularity, (keynote)

**11:40 Inês Grenha<sup>1</sup>, Renato Gonçalves<sup>1</sup>, Juliana Dias<sup>2</sup>, Carla Silva<sup>2</sup>**

<sup>1</sup> *Chemistry Center, University of Minho, Braga, Portugal*

<sup>2</sup> *CITEVE-Technological Center for the Textile and Clothing Industries of Portugal, Vila Nova de Famalicao, Portugal*

Developing sustainable cellulose-based biocomposite films of chitosan crosslinked with genipin, ideal for antimicrobial textile applications

**12:00 Theresa Rüdiger, Sophia Gelderblom, Ansgar Paschen**

*TFI – Institut für Bodensysteme an der RWTH Aachen e.V., Aachen*

*CISUFLO (Circular SUstainable FLOORings)*

**12:20 Pramod Agrawal, Melissa van Schaik, Jens Oelerich, Jan Mahy**

*Research Group Sustainable & Functional Textiles, Saxion University of Applied Sciences, Enschede, Netherlands*

Functional & circular sleeping mattress as an assistive product for tissue integrity [APTI] for cure and care sector

**12:40 Lunch Break**

# **FRIDAY, NOVEMBER 22, 2024**

## **PARALLEL SESSION**

SCHILLER HALL

### **Circular Economy and Recycling**

- 13:45 **Laura Gottardo, Philippe Godano, Ciro Gaudino**  
*Autoneum Management AG, Winterthur, Switzerland*  
A step into the circle: sustainable textile-based products for automotive application (keynote)
- 14:15 **Heli Kangas**  
*Valmet Technologies, Järvenpää, Finland*  
Novel solutions for textile recycling – challenges and opportunities in piloting and scaling-up
- 14:35 **Dennis Wilbers, Peter Akker, Amber Oldemenger, Alex van Norel, Marijke Hoogendam**  
*Teijin Aramid, Arnhem, Netherlands*  
Towards a circular aramid economy
- 14:55 **José Canga Rodríguez, Steffen Müller-Probandt**  
*Dienes Apparatebau GmbH, Mühlheim am Main*  
Modular platform approach for developing and upscaling technologies for spinning biobased and recycled raw materials

# **FRIDAY, NOVEMBER 22, 2024**

## **PARALLEL SESSION**

SILCHER HALL

### **Functionalization and Finishing**

- 11:10 **Friederike Brackmann<sup>1</sup>, Maximilian Brosda<sup>1</sup>, Alexander Olowinsky<sup>1</sup>, Waldemar Lang<sup>2</sup>**

<sup>1</sup> Fraunhofer Institute for Laser Technology ILT, Aachen

<sup>2</sup> Institut für Textiltechnik der RWTH Aachen University, Aachen.

Bonding of metallic structures to thermoplastic textiles using laser radiation for smart textile applications (keynote)

- 11:40 **Nadine Bullerdiek<sup>1</sup>, Alexandra Glogowsky<sup>1</sup>, Anna Missong<sup>1</sup>, Anna-Maria Heidrich<sup>2</sup>, Mandy Paschetag<sup>2</sup>, Stephan Scholl<sup>2</sup>, Maike Rabe<sup>1</sup>**

<sup>1</sup> Faculty of Textile and Clothing Technology, Hochschule Niederrhein – University of Applied Sciences, Mönchengladbach

<sup>2</sup> Institute for Chemical and Thermal Process Engineering, Technische Universität Braunschweig, Braunschweig

Back-to-monomer PET recycling of dyed polyester

- 12:00 **Bianca Zomer**

Zeefier BV, Amsterdam, Netherlands

Zeefier: Responsible Textile Dyeing with Seaweed

- 12:20 **Frank Helbig<sup>1</sup>, Yvonne Zimmermann<sup>2</sup>, Petra Erth<sup>3</sup>, Stefaie Grohse<sup>4</sup>, Carsten Seifert<sup>5</sup>**

<sup>1</sup> Pressless GmbH, Flöha

<sup>2</sup> Textilforschungsinstitut Thüringen-Vogtland e.V., Greiz

<sup>3</sup> Textilausrüstung Pfand GmbH, Lengenfeld

<sup>4</sup> KSO Textil GmbH, Olbersdorf

<sup>5</sup> Ruther & Einenkel GmbH & Co. KG, Annaberg-Buchholz

Smart electronic textile substrates based on knitwear as a basis for stretchable electronic circuits

- 12:40 **Lunch Break**

# **FRIDAY, NOVEMBER 22, 2024**

## **PARALLEL SESSION**

SILCHER HALL

### **Functionalization and Finishing**

**13:45 Maximilian Fritz, Oliver Asmus, Martin Danz**

*Heraeus Precious Metals GmbH & Co. KG, Hanau*

AGXX – The innovative, regulatory-compliant antimicrobial technology for textile functionalization (keynote)

**14:15 Jingbo Wang<sup>1</sup>, Henk Van Paridon<sup>2</sup>, Markus Gahleitner<sup>1</sup>, Klaus Bernreitner<sup>1</sup>, Joachim Fiebig<sup>1</sup>, Wilhelmus Sars<sup>2</sup>, Gustaf Tobieson<sup>3</sup>, Pauli Leskinen<sup>4</sup>**

<sup>1</sup> *Borealis Polyolefine GmbH, Innovation Headquarters, Linz/Austria*

<sup>2</sup> *Borealis Polymers N.V., Beringen, Belgium*

<sup>3</sup> *Borealis AB, Stenungsund, Sweden*

<sup>4</sup> *Borealis Polymers Oy, Porvoo, Finland*

Novel polypropylene melt blown webs with improved filtration efficiency

**14:35 Johanna Beuscher, Claudia Lüling**

*Frankfurt University of Applied Sciences, ReSULT – Research Lab for Sustainable Lightweight Building Technologies, Frankfurt am Main*  
FabricGREEN: Vertical greening with 3D-Textiles

**14:55 Mandira Mondal, S. Wazid Ali**

*Department of Textile and Fibre Engineering, Indian Institute of Technology Delhi, New Delhi, India*

Multi-functional properties of biomolecule-treated fabrics with enhanced washing durability

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# **SPONSORING AND EXHIBITION**

## **SPONSORING**

### **SPONSORING**

To enterprises and institutes who wish to support the Aachen-Dresden-Denkendorf International Textile Conference 2024, we offer a special sponsoring program. Please find all information on the conference website.

Für Unternehmen und Institute, die die Aachen-Dresden-Denkendorf International Textile Conference 2024 unterstützen möchten, bieten wir ein dreistufiges Sponsorenprogramm an. Nutzen Sie die Gelegenheit, sich einem qualifizierten Fachpublikum auch über die Dauer der Konferenz hinaus zu präsentieren. Alle Informationen zum Sponsorenprogramm finden Sie auf der Konferenz-Website.

## **POSTER PRESENTATION**

### **POSTERAUSSTELLUNG**

About 100 posters will be presented in the foyer of the Hegel-Hall. A selection of posters will be shortly introduced on Thursday, November 21, 11 a.m. in Hegel-Hall. Best posters will be awarded during the conference dinner on Thursday evening. Conference participation of at least one poster author is mandatory.

Etwa 100 Poster werden im Foyer des Hegelsaals präsentiert. Eine Kurzvorstellung einer Auswahl an Postern erfolgt am Donnerstag, 21. November um 11 Uhr im Hegel-Saal. Die besten Poster werden während des Conference Dinners am Donnerstagabend ausgezeichnet. Mindestens ein Posterautor muss an der Tagung teilnehmen.

## **EXHIBITION**

### **AUSSTELLUNG**

The conference will be accompanied by an exhibition with company and institute stands. The deadline for the registration of a stand is October 15, 2024.

Please download the order form on the conference website.

Parallel zur Tagung findet eine Ausstellung mit Firmen und Institutsständen statt. Die Anmeldung eines Standes ist bis zum 15. Oktober 2024 möglich. Bitte verwenden Sie hierfür das Formular, das auf der Website zum Download bereitsteht.

# SPONSORS

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# REGISTRATION

## REGISTRATION FEES TAGUNGSGEBÜHREN

	until Oct. 15. bis 15. Okt.	from Oct. 16. ab 16. Okt.
<b>Participant*</b> Teilnehmende	795 €	895 €
<b>Day Ticket</b> Tageskarte	580 €	660 €
<b>Participant from university/ educational institution (including PhD students)</b> Teilnehmende von Hochschule/ Bildungseinrichtung (einschl. Promotionsstudierende)	540 €	640 €
<b>Students</b> Studierende	170 €	250 €
<b>Extra ticket evening event</b> Extrakarte Abendveranstaltung (zzgl. Mwst.)	100 €	100 €

\* 20% reduction from the 3rd participant onwards per company or institute with the same address. Participants have to register at the same time.

\* 20% Rabatt ab 3. Teilnehmer:in pro Firma oder Institut bei gleicher Adresse und gemeinsamer Anmeldung.

If a registration is cancelled by October 22, a fee of 50 € will be charged. After this date, no fees will be refunded. Sending of a substitute is possible.

Bei Stornierungen bis zum 22. Oktober berechnen wir eine Gebühr von 50 €, danach ist keine Erstattung möglich. Ein:e Ersatzteilnehmer:in kann benannt werden.

The participation fee includes attendance at the lectures, drinks during breaks, lunch, evening event (not for student tickets) and conference documents.

Die Teilnehmergebühr schließt den Besuch der Vorträge, Pausengetränke, Mittagessen, Abendveranstaltung (nicht bei Studierentickets) und Tagungsunterlagen ein.

## REGISTRATION REGISTRIERUNG

CongressCheck GmbH is taking care of the registrations for this conference. Please register online via the conference website. As a confirmation of registration you will receive an invoice from CongressCheck.

Die Teilnahmeregistrierungen werden in diesem Jahr über die Firma Congress Check GmbH durchgeführt. Bitte führen Sie die Anmeldung online über unsere Konferenz-Website durch. Als Anmeldebestätigung erhalten Sie eine Rechnung.

# **ADDITIONAL INFORMATION**

## **CONFERENCE LANGUAGES** **TAGUNGSSPRACHEN**

German / English with simultaneous translation in both directions will be available for the following sessions:

Deutsch / Englisch mit Simultanübersetzung in beide Richtungen ist für die folgenden Sessions vorgesehen:

- Plenary sessions
- Parallel sessions "Textile mechanical engineering" and "Fiber composites and lightweight construction"

All other sessions will be held in English throughout and will not be translated.

Alle anderen Sessions werden durchgängig in englischer Sprache stattfinden und werden nicht übersetzt.

## **CONFERENCE DINNER** **FESTABEND**

The Conference Dinner will take place at "Alte Reithalle" right near the conference venue on Thursday, November 21 as of 7:30 p.m. (admission 7:00 p.m.).  
The best posters will be awarded during the Conference Dinner.

Der Festabend findet am Donnerstag, 21. November in der „Alten Reithalle“ direkt neben dem Kongresszentrum statt. Einlass ab 19:00 Uhr, Beginn 19:30.  
Im Rahmen des Festabends werden die besten Poster ausgezeichnet.

## **ORGANIZATION** **ORGANISATION**

Deutsche Institute für Textil- und Faserforschung Denkendorf (DITF)

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Institut für Textilmaschinen und Textile Hochleistungswerkstofftechnik (ITM),

TU Dresden

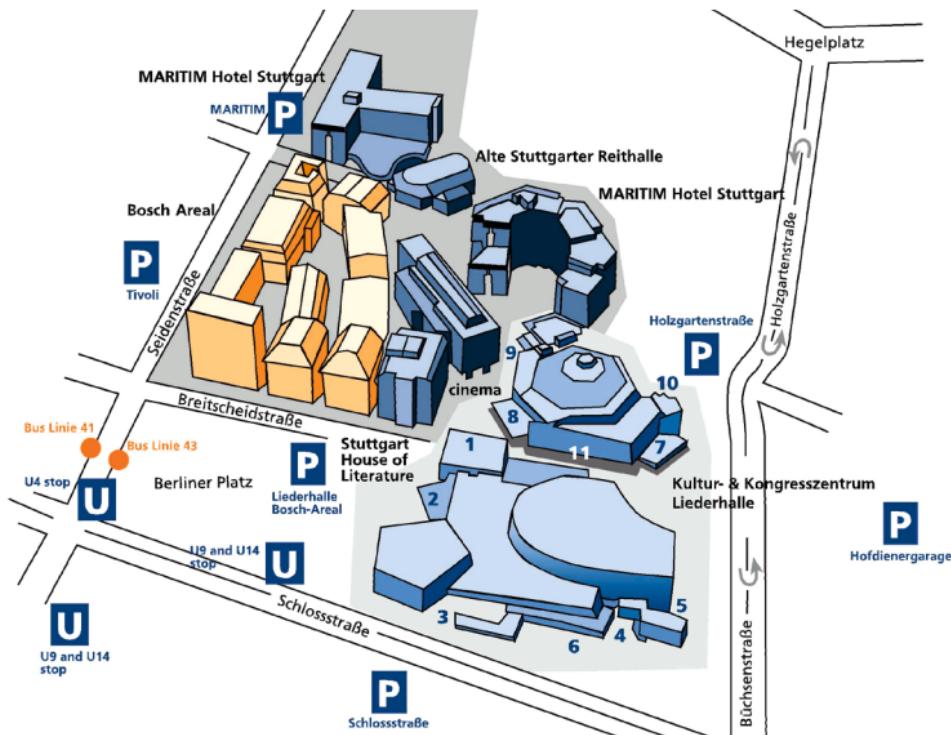
# ADDITIONAL INFORMATION

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## VENUE TAGUNGSORT

Kultur- und Kongresszentrum Liederhalle Stuttgart  
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Tel.: +49 (0)711 2027 710  
[www.liederhalle-stuttgart.de](http://www.liederhalle-stuttgart.de)



- 1 Entrance Breitscheidstraße/information
- 2 Entrance Berliner Platz
- 3 Entrance Schlossstraße/restaurant
- 4 Stage deliveries for the Beethoven Hall/administration
- 5 Artists entrance – Beethoven Hall
- 6 Entrance Bar „La Maison“
- 7 Entrance „Platz der deutschen Einheit“
- 8 Entrance „Robert-Bosch-Platz“
- 9 Stage deliveries/artists entrance – Hegel/Schiller Hall
- 10 Foyer deliveries – Hegel/Schiller Hall
- 11 Underground car park