



**International Research Training Group
CoDiCoFRP (DFG GRK 2078)**

*Integrated Engineering of Continuous-Discontinuous Long
Fiber Reinforced Polymer Structures*

Intensive Project Workshop

November 1 – 3, 2021

Thomashof

Karlsruhe-Durlach, Germany



Scientific Program

Monday 01.11.

Time	Program
From 18:00	Check-In
18:00 – 19:00	Dinner
20:00	Get-Together

Tuesday 02.11.

Time	Program
08:00 – 09:00	Breakfast
09:00 – 10:00	Session 01: Consortium
10:00 – 10:30	Coffee Break
10:30 – 12:00	Lecture: Hybrid Materials for Lightweight Design (Weidenmann)
12:00 – 13:00	Lunch Break
13:00 – 14:00	Session 02: Consortium
14:00 – 14:30	Coffee Break
14:30 – 16:00	Session 03: Subgroups
16:00 – 16:30	Break
16:30 – 18:00	Session 04: Subgroups
18:00 – 19:00	Dinner
20:00	Get-Together

Wednesday 03.11.

Time	Program
08:00 – 09:00	Breakfast
09:00 – 10:30	Session 05: Subgroups
10:30 – 11:00	Coffee Break
11:00 – 12:30	Session 06: Subgroups
12.30 – 13:30	Lunch Break
13:30 – 15:00	Session 07: Subgroups
15:00 – 15:30	Coffee Break
15:30 – 16:30	WrapUp



Sessions

Consortium Session 01	Consortium Session 02
<ul style="list-style-type: none"> • Introduction • Research plan and questions 	<ul style="list-style-type: none"> • Demonstrator • Materials

Session	A	B	C	D
03	Demonstrator I (Kempf) <ul style="list-style-type: none"> • Objectives • Requirements • Constraints 	Fiber orientation description (Blarr) <ul style="list-style-type: none"> • Joining process • Process simulation • Characterization • Modeling • Flow behavior 	Individual group sessions	
04	Material (Schelleis) <ul style="list-style-type: none"> • Material system for demonstrator • Polymer/fiber combination • Local and global placement • Implications 	Fiber length analysis (Schreyer) <ul style="list-style-type: none"> • Literature study on experimental methods • Influence FLD on flow/ mechanical behavior 		
05	Hydrothermal aging (Scheuring) <ul style="list-style-type: none"> • Scale transition • Fiber pressure due to shrinkage • Temperature vs. Humidity • Qualitative vs. Quantitative assessments 	Cooperative Python Coding (Bauer) <ul style="list-style-type: none"> • Cooperative coding • Building blocks • Live coding 		
06	Demonstrator II (Kempf) <ul style="list-style-type: none"> • First draft 	Interface Consolidation (Matkovic) <ul style="list-style-type: none"> • Experimental procedure to determine consolidation 		
07	Crystallinity (Schöller, Prahs) <ul style="list-style-type: none"> • Model crystallization of PA6 • Imaging tool to show spatial distribution 	Database Hackathon (Meyer) <ul style="list-style-type: none"> • Resolve tasks from issue list • Get it to production use (beta) 		





Organizers

International Research Training Group (DFG GRK 2078)

www.grk2078.kit.edu/

Integrated Engineering of Continuous-Discontinuous Long Fiber Reinforced Polymer Structures

Prof. Dr.-Ing. Thomas Böhlke, Speaker

Prof. Dr.-Ing. Frank Henning, Co-Speaker

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