



## DENTAL FRACTOGRAPHY COURSE 2024

08 October - 10 October

# PROGRAM

Hands-on Instructors: Scherrer SS, Lohbauer U, Belli R

### Day 1: In-vitro Fractography

08:30-08:45	Welcome, general information	(SS, UL)
08:45-09:15	History, relevant standards and NIST Guide	(SS, UL)
09:15-09:45	Introduction of fracture mechanics, Part 1	(RB)
09:45-10:15	<b>Live Demo:</b> Fractographic equipment and viewing techniques, Part 1	(UL)
10:15- 10:30	COFFEE BREAK	
10:30-10:50	<b>Hands-on 1:</b> Hand loupes, stereomicroscopes	(all)
10:50-11:35	<b>Live Demo:</b> Fractographic equipment and viewing techniques, Part 2	(UL)
11:35-12:00	Fracture surface features, origins & flaw types, Part 1	(UL)
12:00-13:00	<b>Hands-on 2:</b> Ceramic bend-bars	(all)
13:00-14:30	LUNCH BREAK	
14:30-15:00	Introduction to Fracture Mechanics, Part 2	(RB)
15:00-15:30	Mechanical properties and microstructure of dental ceramics	(RB)
15:30-15:45	COFFEE BREAK	
15:45-16:15	Fracture surface features, origins & flaw types, Part 2	(SS)
16:15-17:00	<b>Interactive:</b> Clinical case presentations 1	(SS)



## Day 2: In vivo Fractography

08:30-08:50	Data collection, systematic approach, cleaning procedure	(SS)
08:50-09:20	<b>Interactive:</b> Clinical case presentation 2	(SS)
09:20-10:00	<b>Hands-on 3:</b> Clinical cases	(all)
10:00-10:15	COFFEE BREAK	
10:15-10:50	The replica technique ( <b>Hands-on</b> )	(UL)
10:50-11:30	<b>Hands-on 4:</b> Replica glass rods & replica crown chippings	(RB)
11:30-12:00	How to organize a fractography paper	(RB)
12:00-13:00	Mechanical properties and microstructure of dental composites	(UL)
13:00-14:30	LUNCH BREAK	
14:30-15:00	<b>Interactive:</b> Composite clinical fractures	(all)
15:00-15:30	<b>Hands-on 5:</b> Composite bend bars & composite clinical cases	(all)
15:30-15:50	COFFEE BREAK	
15:50-16:15	ADM-Guidance paper on fractography	(SS)
16:15-17:00	<b>Live Demo/Hands-on 6:</b> Clinical cases	(all)
19:30-23:00	SOCIAL DINNER: Osteria del Boccondivino, Bra ( <a href="http://boccondivinoslow.it">boccondivinoslow.it</a> )	



### **Day 3: Research and Fractography**

08:30- 09:30 **Invited talk:**

*Prof. Paola Palmero (Department of Applied Science and Technology (DISAT), Politecnico di Torino, Italy):*

*“Defects in layered additive manufacturing of zirconia and their impact on mechanical properties” (preliminary title)*

09:30-11:30 **Invited talk:**

*Dr. Maximilian Staudacher (Chair of Structural and Functional Ceramics, Montan Universität Leoben, Austria):*

*„Fractography on biaxial strength testing of ceramics” (preliminary title)*

11:30-12:00 COFFEE BREAK

12:00-13:30 **Interactive cases, Hands-on, individual Q&A**

13:30-14:00 Closing remarks

14:00-15:00 LUNCH BREAK