



Graduate Interdisciplinary Session #5 SLEIGHT IN 2021

Monday, 11 January

ACCESS OPENS AT 8:45.
PLEASE JOIN BY 8:55

9:00 – 9:30
SESSION A1

“MANUTECH SLEIGHT
Graduate School Presentation”

Florence GARRELIE Scientific Coordinator of
MANUTECH SLEIGHT Graduate School, Director of
Laboratoire Hubert Curien (UJM –CNRS- IOGS),
Saint-Étienne

09:30-09:45 BREAK

09:45 – 11:00
SESSION A2

COURSE “Ultrashort pulsed
laser structuring of Biomimetic
Surfaces”

Emmanuel STRATAKIS Institute of
Electronic Structure and Laser - Foundation
of Research and Technology Hellas (IESL -
FORTH)- University Of Crete - Greece

11:00-11:15 BREAK

11:15 – 12:30
SESSION A3

COURSE “Making Sense in
Surgery using Near-Infrared
Optical Imaging”

Sylvain GIOUX Laboratoire Icube (CNRS,
Université de Strasbourg, ENGEE, INSA de
Strasbourg), Strasbourg

12:30 – 13:30 - BREAK

13:30 – 14:45
SESSION A4

COURSE “Frontiers in Next-
Generation Nanophotonic
Biosensors”

Hatice ALTUG Bionanophotonic Systems
Laboratory - EPFL- Switzerland

14:45 – 15:00 - BREAK

15:00 - 15:30
SESSION A5

ALUMNA “Characterization of
optical coatings for decorative
purposes on watch
components”

Keziban KANDEMIR Master Graduate 2020
(Master OIVM - SISE), CERN - Switzerland

15:30-15:45 BREAK

15:45 - 17:00
SESSION A6

COURSE “Digital holographic
microscopy in partially
coherent light” - Part 1

Jérôme DOHET-ERALY Microgravity
Research Centre, Université libre de
Bruxelles - Belgium

17:00 -17:15 BREAK

17:15 - 18:30
SESSION A7

COURSE “Functional
nanoplasmonics:
fundamentals and
applications” - Part 1

Harald GIESSEN 4th Physics Institute -
University of Stuttgart - Germany

Tuesday, 12 January

ACCESS OPENS AT 8:15.
PLEASE JOIN BY 8:25

8:30 – 10:00
SESSION B1

Pitch Session - MANUTECH
SLEIGHT Master students

François JACQUENET Chair of the session,
Laboratoire Hubert Curien (UJM –CNRS-
IOGS), Saint-Étienne

Details in the booklet

10:00-10:15 BREAK

10:15 – 12:45
SESSION B2

COURSE “Resonant light
Scattering : From the Mie
theory to Mie-resonant
metaphotonics”

Nicolas BONOD Institut Fresnel (Université
Aix-Marseille, CNRS, Centrale Marseille)

12:45 – 13:45 - BREAK

13:45 – 15:00
SESSION B3

COURSE “Digital holographic
microscopy in partially
coherent light” Part 2

Jérôme DOHET-ERALY Microgravity
Research Centre, Université libre de
Bruxelles - Belgium

15:00 – 15:15 - BREAK

15:15 – 16:30
SESSION B4

COURSE “Non linear materials
for portable disease
diagnostics”

Andrea ARMANI University of Southern
California - USA

16:30 – 16:45 - BREAK

16:45 – 18:00
SESSION B5

COURSE “Virtual Photography”

Henrik WANN JENSEN Jacobs School of
Engineering - University of California-San
Diego - USA

Wednesday, 13 January

ACCESS OPENS AT 8:45.
PLEASE JOIN BY 8:55

9:00 – 10:45
SESSION C1

Post-doctoral Session

Chairs : Raphaël CLERC Laboratoire Hubert
Curien (UJM –CNRS- IOGS), Saint-Étienne
& **Karine MASENELLI-VARLOT**
Laboratoire MATEIS (INSA Lyon - UCBL -
CNRS), Lyon

Details in the booklet

10:45-11:00 BREAK

11:00 – 12:15
SESSION C2

COURSE “Artificial Intelligence-
driven appearance
management for 3D printing
and laser color marking “

Vahid BABAEI Max-Planck Institute for
Informatics - Germany

12:15 – 14:00 - BREAK

14:00 – 15:15
SESSION C3

COURSE “Functional
nanoplasmonics:
fundamentals and
applications” - Part 2

Harald GIESSEN 4th Physics Institute -
University of Stuttgart - Germany

15:15-15:30 BREAK

15:30 – 18:30
SESSION C4

PhD Session

Chairs : Florence GARRELIE Laboratoire
Hubert Curien (UJM –CNRS- IOGS), Saint-
Étienne
& **Donata IANDOLO** Laboratoire
SAINBIOSE (UJM –Mines Saint-Étienne-
INSERM), Saint-Étienne

Details in the booklet

Thursday, 14 January

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9:00 – 12:20

SESSION D1

**Workshop of scientific Axis 1
“Predict and experiment light-
induced surface modification
processes”**

9:00-9:10

- *“Introduction of the workshop of
Sc. Axis 1”*

Jean-Philippe COLOMBIER Laboratoire
Hubert Curien (UJM –CNRS- IOGS), Saint-
Étienne

9:10-9:40

- *“Morphosurf Project - Ultrafast
laser nanostructuring below 100nm”*

Anthony NAKHOUL Laboratoire George
Friedel (Mines Saint-Étienne – CNRS) &
Laboratoire Hubert Curien (UJM –CNRS-
IOGS), Saint-Étienne

9:40-10:10

- *“Densified materials on nanoscale”*

Huu-Dat NGUYEN Laboratoire Hubert Curien
(UJM –CNRS- IOGS) & Laboratoire George
Friedel (Mines Saint-Étienne – CNRS), Saint-
Étienne

10:10-10:40

- *“SMOB Project”*

Christophe DESRAYAUD Laboratoire George
Friedel (Mines Saint-Étienne – CNRS), Saint-
Étienne

10:40-11:10 BREAK

11:10-11:40

- *“Ultrafast laser shock peening:
principle and applications”*

Guillaume KERMOUCHE Laboratoire George
Friedel (Mines Saint-Étienne – CNRS), Saint-
Étienne

11:40-12:10

- *“Multifunctional Zr-Cu based Thin
Film Metallic Glasses - Opportunity
of a further fs-laser treatment”*

Philippe STEYER Laboratoire MATEIS (INSA
Lyon – UCBL - CNRS), Lyon

12:10-12:20

- *“Openened discussion and
concluding remarks”*

12:20 – 14:00 BREAK

14:00 – 17:00

SESSION D2

**Workshop of scientific Axis 2
“Extract full information and
meaning from surface
imaging”**

14:00-14:10

- *“Introduction of the workshop -
programme at a glance”*

Marc SEBBAN Laboratoire Hubert Curien
(UJM –CNRS- IOGS), Saint-Étienne

14:10-14:50

- *“Acquisition of images without any
lens”*

Corinne Fournier Laboratoire Hubert Curien
(UJM –CNRS- IOGS), Saint-Étienne

14:50-15:30

- *“Development of methods to
determine and quantify
characteristics of wear particles”*

Alizée BOUCHOT Laboratoire LaMCoS (INSA
Lyon - CNRS), Lyon

15:30-15:45 BREAK

15:45-16:30

- *“PART 1: Confidence-based Local
Feature Selection for Material
Classification”*

- *“PART 2: Automatic image color
calibration without color checker”*

Damien MUSELET Laboratoire Hubert Curien
(UJM –CNRS- IOGS), Saint-Étienne

16:30-17:00

- *“Deep Learning based
segmentation and tracking of
nanoparticles on surfaces applied to
the in situ study of nanocatalysts by
Scanning Transmission Electron
Microscopy”*

Khuram FARAZ Laboratoire MATEIS (INSA
Lyon - UCBL - CNRS), Lyon & Laboratoire
Hubert Curien (UJM –CNRS- IOGS), Saint-
Étienne

Friday, 15 January

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9:00 – 12:00

SESSION E1

**Workshop of scientific Axis 3
“Foster a decisive
technological leap in
engineering control of light
induced surface modification
effects”**

9:00-9:10

- *“Introduction of the workshop of
Sc. Axis 3”*

Laurence VICO Laboratoire SAINBIOSE (UJM
–Mines Saint-Étienne- INSERM), Saint-
Étienne

9:10-9:30

- *“Multifunctional texturations of
titanium based dental implants with
femtosecond laser”*

Steve PAPA Laboratoire SAINBIOSE (UJM –
Mines Saint-Étienne- INSERM), Saint-
Étienne & Laboratoire LTDS (Centrale Lyon –
ENTPE – CNRS), Lyon

9:30-10:00

- *“Femtosecond laser applied to the
anterior segment of the eye”*

Abderazek TALBI Post-doctorant
Laboratoire Hubert Curien (UJM –CNRS-
IOGS), Saint-Étienne
& **Olfa BEN MOUSSA** PhD Student
Laboratoire BiiGC (UJM), Saint-Étienne

10:00-10:30

- *“COUPLES : Thin passive film
caracterization by surface plasmon
resonance”*

Julie DUTEMS Laboratoire Hubert Curien
(UJM –CNRS- IOGS), Saint-Étienne &
Laboratoire MATEIS (INSA Lyon - UCBL -
CNRS), Lyon

10:30-11:00 BREAK

11:00-11:30

- *“Nanomaterials for optical
applications”*

Karine LANDRY MATHYM Company,
Champagne-au-Mont-d'Or

11:30-12:00

- *Exchanges*

12:00 – 14:00

Award announcement.

End of scientific workshops

14:00 – 17:00

**Joint Meeting of Scientific and
Educational Committees**

*Restricted to the members of
committees*



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