

# Scientific seminar of Modal: “Modal’s days”

January 23<sup>th</sup> & 24<sup>th</sup> 2020

Hôtel Louvre Lens- 168 Rue Paul Bert - 62300 Lens - + 33 (0)3 66 98 10 40

<https://www.hotel-louvre-lens.com/fr>



## Planning

### January 23 (Thursday)

8:30 Living Lille by car (more detail below about that)<sup>1</sup>  
9:15 Arrival at Lens  
9:15-9:40 Installation

#### Starting pitch

9:40-10:00 (20') [Strategy] Targeting impact from our research (Christophe)

#### Unsupervised setting (axis 1): 10:00-11:00

9:50-10:10 (20') [Ongoing research] Deep Gaussian Mixture Model (Margot)  
10:10-10:30 (20') [Ongoing research] Unsupervised learning of huge datasets with limited computer resources (Filippo)  
10:30-10:50 (20') [Ongoing research] Model-free and model-based clustering of multilayer networks (Guillaume)

Break 11:00-11:20

#### Performance assessment (axis 2): 11:20-12:00

11:20-11:40 (20') [Ongoing research] Learning general sparse additive models from point queries in high dimensions (Hemant)  
11:40-12:00 (20') Smoothed discrepancy principle in RKHS (Yaroslav)

#### Functional data (axis 3): 12:00-12:20

12:00-12:20 (20') [Ongoing research] Categorical functional data analysis: stochastic modelling and divergence measures (Cristian, Vlad)

Installation in bedrooms 12:20-13:00

Lunch 13:00-14:20

#### Time life: 14:20-14:40

14:20-14:40 (20') News about Inria organization (Anne)

#### Applications motivating researches (axis 4): 14:40-15:20

14:40-15:00 (20') [Ongoing research] PERF-AI project: Enhance Aircraft Performance and Optimisation through Utilisation of Artificial Intelligence (Arthur, Florent)  
15:00-15:20 (20') [Ongoing research] Sales prediction by grouping slow movers products (Axel)

---

<sup>1</sup> Some of us planned to reach Lens by car.

Break 15:20-15:40

**Social activity: 16:00-end of the afternoon**

16:00-16:15 Walking from the hotel to the Louvre Lens Museum  
16:15-17:45 Guided tour of the Museum  
17:45-18:00 Coming back to the hotel  
  
18:00-20:00 Free time  
20:00-... Diner  
Evening, night Free evening, we stay the night at the hotel

**January 24 (Friday)**

**Transfer from research: 9:00-10:00**

9:00-9:20 (20') [Software] Audit of the Rmixcomp package on data from the COLAS company (Issam)  
9:20-9:40 (20') [Start-up] News from the start-up DiagRAMS (Quentin)  
9:40-10:00 (20') [SED] Feedback from other teams (Julien)

**Future research (1/3: interpretable learning): 10:00-11:00 — chair: Vincent**

10:00-10:20 (20') [Strategy] Introduction, motivation, overview (Vincent)  
10:20-10:40 (20') [Strategy] Round table, discussion  
10:40-11:00 (20') [Strategy] Summarize some selected ideas for future research on this topic

Break 11:00-11:20

**Team life: 11:20-12:00**

11:20 -11:40 (20') Requirements for a new and efficient website of Modal (Serge)  
11:40 -12:00 (20') Open topics about team life (ex.: seminars, offices, coffee...)

**Free time / working: 12:00-13:00**

12:00 -13:00 (60') Opportunity to work by sub-groups, to work alone or to have free time

Lunch 13:00 -14:20

**Future research (2/3: HD mixed learning): 14:20-15:20 — chair: Christine**

14:20-14:40 (20') [Strategy] Introduction, motivation, overview (Christine)  
14:40-15:00 (20') [Strategy] Round table, discussion  
15:00-15:20 (20') [Strategy] Summarize some selected ideas for future research on this topic

**Future research (3/3: future challenges): 15:20-16:20 — chair: Christophe**

15:20-15:40 (20') [Strategy] Introducing future challenges (Christophe)  
15:40-16:00 (20') [Strategy] Round table, discussion  
16:00-16:20 (20') [Strategy] Summarize some selected ideas for future research

**Free time / working: 16:20-17:00**

16:20 -17:00 (40') Opportunity to work by sub-groups, to work alone or to have free time

17:00 Living Lens by car (more detail below about that)<sup>2</sup>  
17:45 Arrival to Lille

---

<sup>2</sup> Some of us by train

## Advice for sessions

**Session 20'**: 15' talk (maximum 8-10 slides) and 5' discussions

The purpose is to be **didactic** in order that discussions are fruitful

## Carpooling

**Departure** 8:15 Thursday morning Porte de Paris (in Lille), in front of the large white building (see below)

**Return** 17:45 Friday evening at the same place

### Available cars (free seats are in parentheses)

Lille->Lens: Christophe (4), Cristian (4), Quentin (3), Axel (3)

Lens->Lille: Christophe (4), Cristian (4), Guillemette (4), Quentin (3), Axel (3)



## Participants (19 nuitées)

---

Filippo Antonazzo	Benjamin Guedj (visio ven.)	Christian Preda
Yaroslav Averyanov	Christine Keribin	Anne Rejl
Vlad Barbu	Serge Iovlef	Margot Seloese
Christophe Biernacki	Matthieu Marbac (jeu.)	Arthur Talpaert
Guillaume Braun	Guillemette Marot ( ven.)	Hemant Tyagi
Alain Célisse (arrivera jeu. pm)	Issam Ali Moindjié	Julien Vandaële
Florent Dewez	Axel Potier	Vincent Vandewalle (ven.)
Quentin Grimonprez		Apoorv Vikram Singh

---

