

# Cosmology with LArge Scale Surveys (CLASS)

Starting date 2020, Duration 48 months, 40 members

Contact points: Eric Jullo (LAM), Dominique Fouchez (CPPM), Christian Marinoni (CPT)

Link to proposal 2021

<https://nuage.osupytheas.fr/s/yE2WLTGBHki3ay9>

Wiki page

<https://projets.lam.fr/projects/class/wiki>

Main motivations

- Trigger discussions between our 3 labs
- Travel funding (details will come after IPhU Kick off meeting)

# Project methodology

- Regular meetings between CPPM, CPT & LAM
  - Cafe Club on Wednesday at 11am (organizer Carlo)
  - Shot Plot on Thursday at 2pm (organizers Renan, Bastien & Julian)
  - Journal Club at CPT
  - MCMC?
- Face-to-face annual meeting

# News

## New PhD student starting Oct 1st @LAM

- Martin KÄRCHER (from Germany) to work on « Modified gravity from cosmic web environment-dependent galaxy clustering and weak lensing »
- Nicolas Martinet, CNAP/AA position @LAM
- Julian Bautista, chaire d'excellence @CPPM

Any other news?

# Scientific topics

## Precision cosmology : dark energy & dark matter

- Theoretical developments on Dark energy
- Development of cosmological simulations
- Dark energy constants from the last-scale structure: observational prospects
- Dark energy and modified gravity constraints from standard candles/sirens

## Cosmic web mapping and galaxy formation

- First galaxy structures ( $3 < z < 7$ )
- Intergalactic medium tomography ( $2 < z < 4$ )
- Late time evolution of the cosmic web ( $0 < z < 2$ )

# Money

- CLASS collaboration meeting @LAM, September 23, 2021 ~500€  
Organisation of a workshop “The cosmological metric under scrutiny” ~ 1k€  
Participation in WEAVE collaboration meeting (Europe) ~ 1k€  
Participation in J-PAS collaboration meeting (Europe) ~ 1k€  
Participation to the DE Action in October in Paris ~ 0,5k€  
Collaboration travels to Paris & Oxford in Dec 2021 ~2.5k€  
Laptop + Licence @ CPT 1k€  
3 GPUs 4k€  
2 SSD HD 2k€
- Total: 12.5k€

# Papers acknowledgments

- ***In your affiliation***, please add “IPhU” right after the acronym of your lab  
*e.g.* for a CPT author it should read:  
"Aix Marseille Univ, Université de Toulon, CNRS, CPT, IPhU, Marseille, France"
- ***In the Acknowledgement section***, please add the following sentence:  
"The project leading to this publication has received funding from Excellence Initiative of Aix-Marseille University - A\*MIDEX, a French "Investissements d'Avenir" programme (AMX-19-IET-008 - IPhU)."

# AOB

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