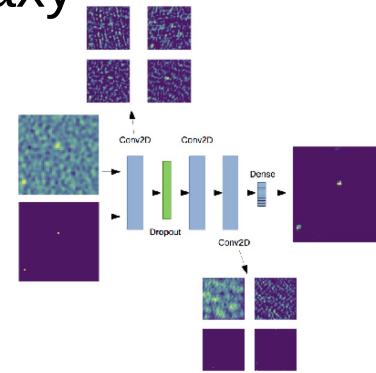
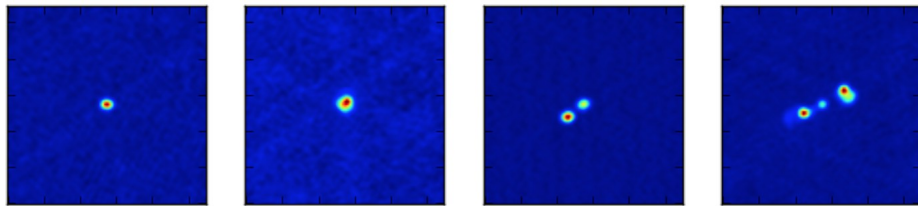
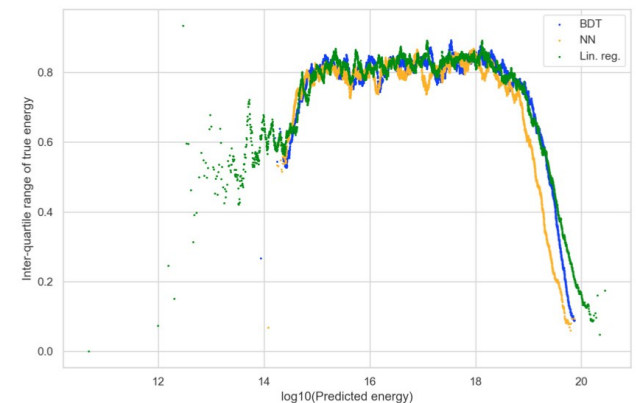
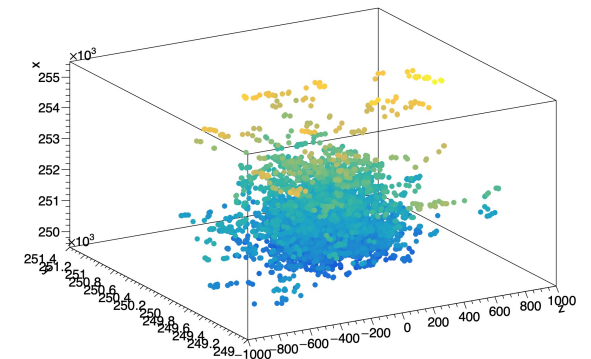
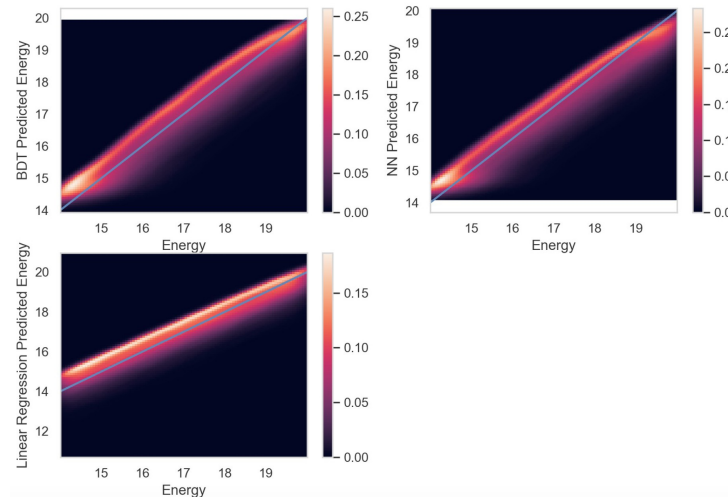
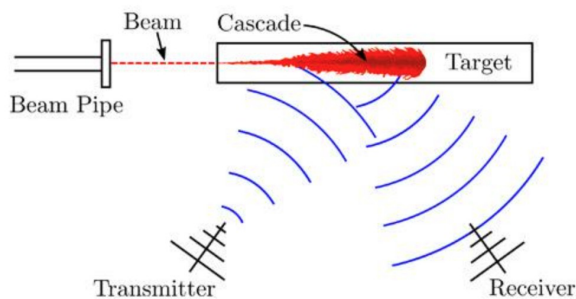


Vesna Lukic

Previously: PhD at the University of Hamburg, at Hamburg Observatory, supervised by Marcus Brüggen. Looked at classifying radio galaxy morphologies, as well as source finding

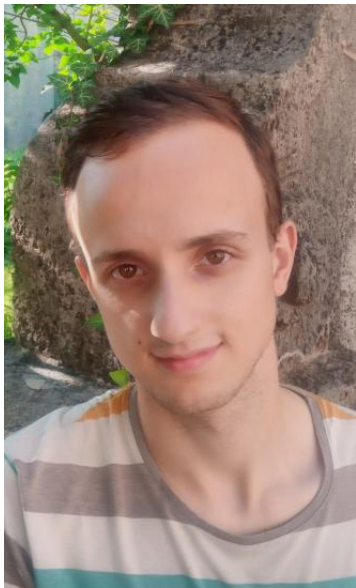


Currently: Postdoc in Krijn's group, working on energy construction and resolution for the Radar Echo Telescope (RET)



My name is Ali Khalilzadeh. I graduated in particle physics from Shiraz university. To follow my interest in accelerator physics, I had been working in ILSF for 3 years as a control staff. It helped me to have a good grasp of general ideas about different parts of the accelerator. But it was not enough for me and I decided to be an expert and have a deeper knowledge on accelerators. I joined the tracker group of CMS at IHE in the first of 2020. Also I am interested in programming, robotics, electronic, automation systems, amateur astronomy, climbing and tennis. I came from Iran to follow my dreams.





Mitja Desmet

- ▶ I am 22 years old.
- ▶ I am a 2nd master's student, doing my thesis on the topic of lightning reconstruction with AI at LOFAR.
- ▶ My hobbies are ultimate frisbee, scouts and gaming.



Me at Walhalla in La Suisse

Name: Max
Lalleman
Second Master
Physics @ VUB

THESIS IN FREEZE-IN DARK MATTER
AND GRAVITATIONAL WAVES

FAVOURITE COLOUR: RED

Fakhri Alam Khan (PhD student)

Department: Service de Physique des Particules, ULB.

Thesis work at : CMS, CERN.

Funded by: CERN Doctoral Scholarship program ,2020.

University Supervisor : Professor Gilles De Lentdecker.

CERN supervisor : Dr. Paul Aspell.

Thesis Title:

“Contribution to the design of the electronics and to the characterization of the silicon modules of the CMS High Granularity Calorimeter (HGCal) for HL-LHC.”



*Fakhri Alam Khan
Country : Pakistan
Last degree: MPhil Physics
Working at CMS, CERN
since, May 2018 for HGCal.*

Santiago Paredes Sáenz

From: Quito, Ecuador

Based: London, UK

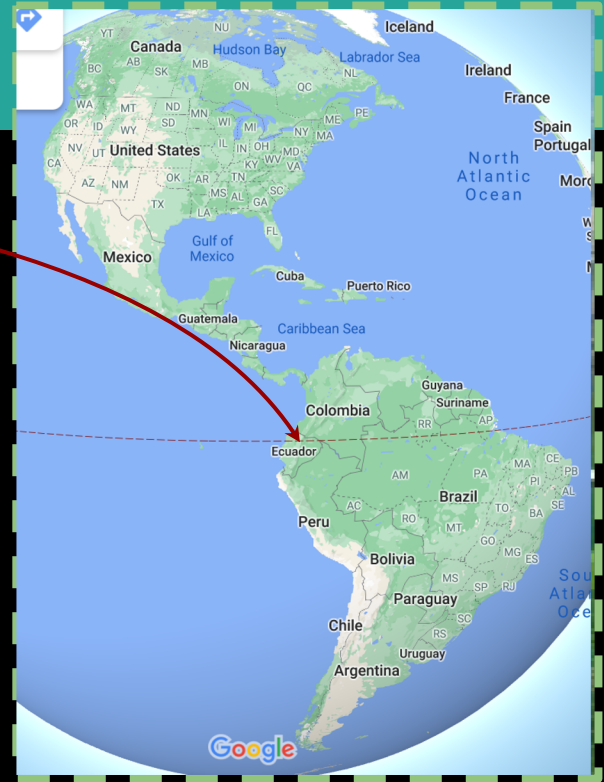
Physics Stuff: CERN Summer Student (CMS)
LPC@FNAL internship (CMS)
DPhil @ U. of Oxford (ATLAS)
Postdoc @ ULB (CMS)

Non-physics stuff: Hiking
Cooking
Beer (brewing & drinking)
Games (video/board)

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Zino Boisdenghien

- Master in Physics at VUB
- PhD in Quantum Physics/Quantum Chemistry at VUB in 2015
- Policy officer at *STEM-steunpunt Brussel*
 - Offers support to STEM (Science, Technology, Engineering, Mathematics) education in the Brussels region
 - Coordinate development of STEM projects with teachers
 - Connects teachers with experts from VUB and Erasmushogeschool Brussel
- Currently working on development of a digital learning project for high school students (ages 14-18) on the COVID-19 epidemic



PostDoc – Dmytro Hohov

- Born in Ukraine (1992)
- Bachelor (2013) and Master (2015) degrees in Nuclear Physics at National University of Kyiv.
- Master 2 (Grands Instruments) at University Paris-Saclay (2016).
- PhD at University Paris-Saclay (2016-2019) «Advanced planar pixel technology developments for ATLAS upgrade phase 2»
- Since March 2020 happy to work on CMS tracker phase 2 upgrade at IIHE
 - Working on the Database development
 - Board for IV/CV measurements of 2S modules
- Hobbies: Sports, football, guitars (play very bad so far 😊), chess.



The first detector I visited at the LHC.

July 2019 😊 .

Alexander Morton

Joined Steven Lowette at the VUB/IIHE in March 2020 as an EOS postdoc to work on Exotic Physics searches and Tracker Upgrade projects as part of the CMS Collaboration.

Background:

- PhD: Brunel University London
- Former Research Assistant: Imperial College London.
- Undertook first search for tZq (dilepton) in CMS (PhD)
- Longstanding contributions to CMS Phase 2 Outer Tracker Upgrade program (2013-present).

Current research activities:

- Exotics: Searching for Higgs-produced low mass scalars.
- P2 Outer Tracker: Ongoing BE system software studies, coordinating Pattern Recognition activities for module assembly at the IIHE, and DAQ firmware.

Life outside of research (pre-Covid):

- Academic outreach.
- Singing in choirs (bass).
- Drives/fires a 160km/h steam locomotive (built in 2008).





Marta Colomer Molla

- New postdoc researcher at IIHE in the JUNO group
- Born in Valencia (Spain), 26 years old
- PhD thesis in astroparticle physics with the ANTARES-KM3NeT Collaboration
- Co-tutorship between APC (Université de Paris) and IFIC (Universidad de Valencia)
- I have worked on multi-messenger studies: Core-Collapse Supernova neutrinos and HE neutrinos from compact binary mergers and GRBs

Martin Delcourt

03/12/1991



Etterbeek
CMS tracker upgrade
with Steven

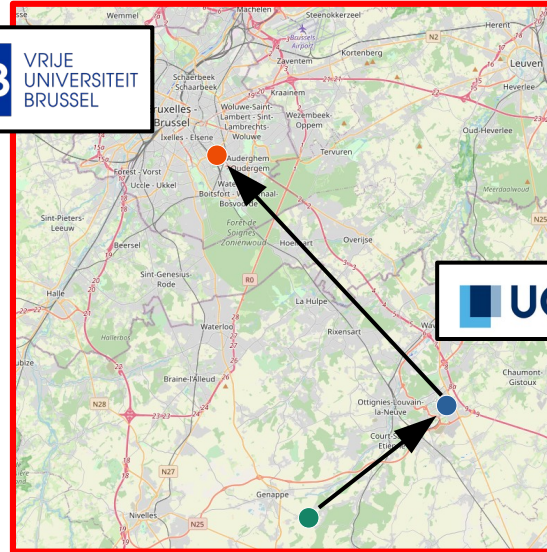
Personal interests :

- Cooking
- Photography
- Walking, cycling
- Occasional sports
- Video games

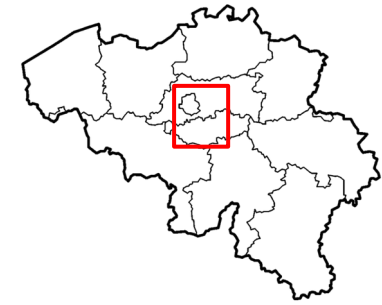


Curriculum vitae

~40km



~ **Genappe**
Born & raised



Louvain-La-Neuve
Bachelor & masters
Phd as teacher's assistant
*CMS tracker upgrade
and HH at HL-LHC*

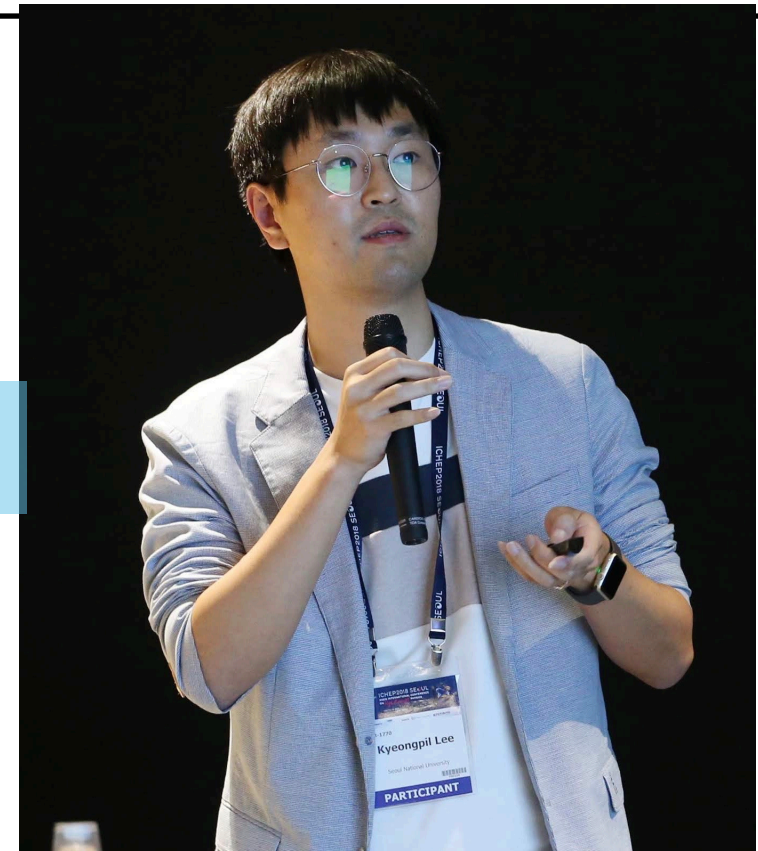
This is where I am living

Kyeongpil Lee

Education & career

- 2010 - 2014: B.Sc. in Physics (Seoul National University, Korea)
- 2014 - Aug. 2020: Ph.D. Student (Seoul National University, Korea)
 - Ph.D. thesis title: “Measurement of the **differential Drell-Yan cross section** in pp collisions at $\sqrt{s} = 13$ TeV with the **CMS detector**”
 - ✓ Thesis advisor: Professor Hwidong Yoo
- Sep. 2020 - Present: Join ULB group (Prof. Laurent) as a postdoc

Photo
@ ICHEP2018



Physics Research

- **Main analysis:** Measurement of the **Differential Drell-Yan cross sections** with the CMS detector
- Also contribute to **$Z' \rightarrow \mu\mu$ search & $Z(\rightarrow \ell\ell)\gamma$ resonance search**

Detector research

- Official **efficiency scale factor** for **single muon triggers** with full Run 2 data (since 2015)
- Upgrade of the **online muon reconstruction algorithm** in 2018

Photo @ Wedding
on Nov. 2020



Leadership in the CMS experiment

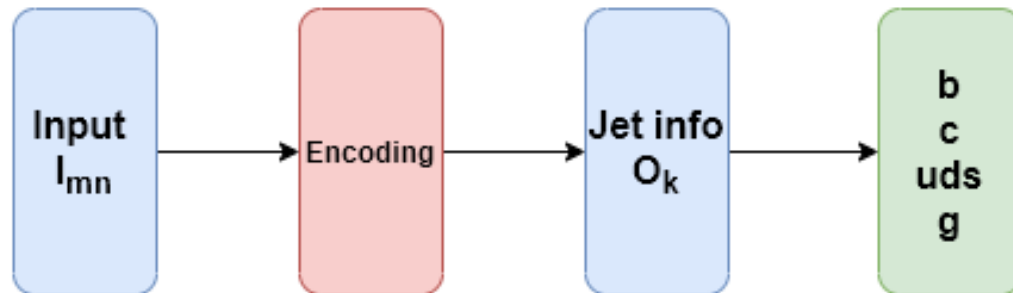
- Sep. 2017 - Aug. 2020: Muon HLT convener (under Muon POG, L3)
- Sep. 2020 - Present: SMP-MUO contact (under SMP PAG, L3)

Alexandre De Moor

- Started in July with Jorgen D'Hondt as promotor, Seth Moortgat and Emil Bols.
- Up to now, heavy flavour tagging via Neural Networks with Emil Bols :
 - Maintaining and updating our environment
 - Point Clouds/Graph networks
 - Sequence to sequence networks
 - Attention mechanism
 - Optimizers & activation functions
- Later : Charm Yukawa coupling with Seth Moortgat (2021)



Encoding sequence for heavy flavour tagging



About me :

- Did my Bachelor's and Master's degree at ULB in physics.
- Really into new technologies, especially AI
- Spend my free time with my dog, playing videogames or doing sport.
- Photography as a hobby : mostly nature and animals
- Love sport : tennis, cycling, football and athletics

Hello !

I am Paramita Dasgupta



I obtained my PhD in Physics from Indian Institute of Technology
(IIT) Kanpur, India in 2020

Supervisor: Prof. Pankaj Jain, IIT Kanpur

At IIHE-ULB, I work with Dr. Simona Toscano as a Post-Doc

– Radio Experiments ARA, RET and RNO-G

I love music, movies, painting, cooking, traveling....

Nina Hindrikkx

- Management assistant
- 27
- Hasselt → Brussels
- Midwife → management assistant
- Weightlifting



- Uzair Abdul Latif
- PhD University of Kansas ,2020
 - Dr. David Besson
- Working with Prof. Dr. Krijn de Vries as his Postdoc.
 - Radio Experiments (ARA, RET...)
 - Simulation and Analysis work





Kumiko Kotera



10% professorship at VUB
CNRS researcher at Institut d'Astrophysique de Paris

Supervising: Simon Chiche
(PhD student @IAP)



Source modeling
Multi-messenger flux predictions
Pulsars and other transient sources
Numerical cosmic ray propagation & interaction
Analytical methods



Giant Radio Array for Neutrino Detection
Co-founder and co-spokesperson
Air-shower parameter reconstruction pipeline
Array layout studies



- **Where From?** Egypt. I also hold a British citizenship.
- **PhD start date:** October 2018; joint doctoral degree (UCL-VUB) funded by EOS. Started at VUB in 2020.
- **PhD supervisors:** Jorgen D'Hondt (VUB), Andrea Giammanco and Fabio Maltoni (UCL).
- **Previous qualification:** MSc Physics, Uppsala University: Phenomenological Studies on Composite Higgs Models.
- **Current research theme:** Phenomenology of top-quark interactions in the SM and SMEFT.
- **If not physics, then what?** Tennis.
- **Lose track of time doing what?** Chess.
- **Sceptical about the vaccine?** No.

Denise Müller

- Postdoc in the group of Prof. Freya Blekman since mid July 2020
 - Data analysis: Search for resonant BSM physics in final states with top and bottom quarks at CMS (“bump hunt” for new heavy particles)
 - Other tasks: Metrology of CMS tracker sensor (phase-2 upgrade), HEP@VUB seminar co-organization
- Background:
 - PhD at Karlsruhe Institute of Technology (June 2020)
 - Topic: Search for s-channel single top quark production at 13 TeV with the CMS experiment
- Outside science:
 - (Virtual) board games
 - Hiking



- **Hello! I'm Dieder Van den Broeck**
- **I graduated at VUB last year and did my master thesis with Krijn de Vries**
- **Started as PhD student with Stijn Buitink, Krijn de Vries and Tim Huege to *study propagation modes of radio signals in ice***
- **Nice to meet you!**



Nicolás González

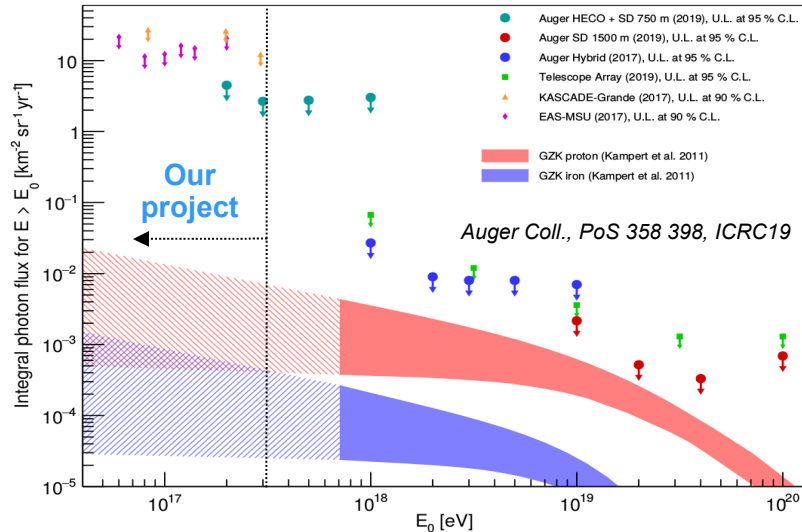


I'm an Argentinian 34-year-old physicist.

Member of the Pierre Auger Collaboration since 2012. PhD in Astrophysics in 2018.

Most of my career in the ITeDA institute of Buenos Aires, Argentina.

Arrived in November for a 2-year Cofund fellowship under the supervision of Prof. Ioana Mariş.



Scientific goal: Search for ultra-high energy photons (>10 PeV) at the Pierre Auger Observatory.

First multi-hybrid measurements: buried muon detectors, AugerPrime scintillators and water-Cherenkov detectors.



Search for the Four Tops Process

Nikos Stylianou

Who am I?

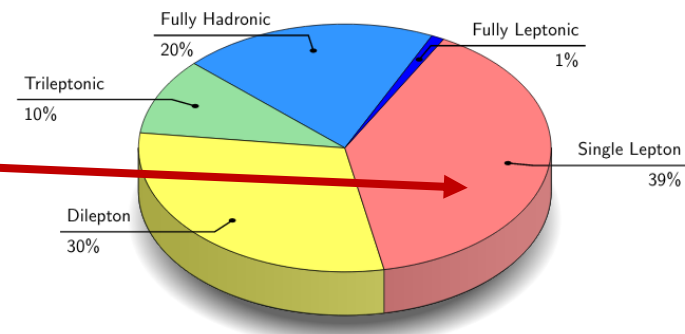
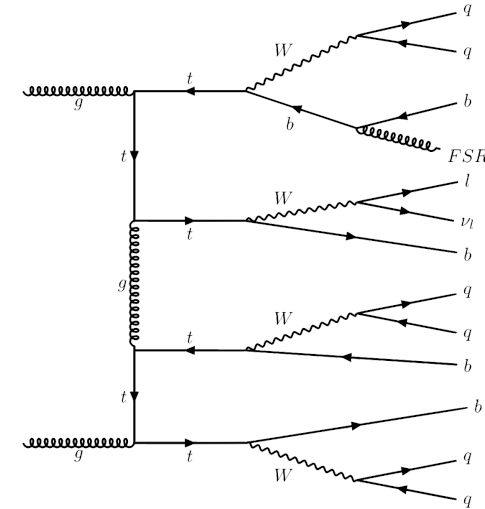
- Originally from Cyprus, obtained MSci at University of Bristol,
- Currently joint PhD student between Bristol and VUB

Subject of Study:

- Four top production**, a very rare SM process, predicted cross section $\sqrt{s}=13$ TeV is $\sigma(pp \rightarrow t\bar{t}t\bar{t}) = 12.0 \pm 2.2$ fb at NLO accuracy in EWK+QCD
- Sensitive to several extensions of the SM and can be used to constrain the top quark Yukawa term in the SM Lagrangian, CP-related parameters, and effective field theory operators.
- Single lepton final states (39%)**: 4 b-jets, 10 jets
- Main background: $t\bar{t} + jets$ (\therefore Data-driven study)
- Previous CMS papers:

2016 OS dilepton and single-lepton TOP-17-019,

Run2 SS dilepton and multi-lepton TOP-18-003



Kevin Turbang

Master's thesis with Alberto Mariotti
(graduated 2020)

Joined LIGO/Virgo collaboration

Joint PhD (VUB/UAntwerpen): *The stochastic background of gravitational waves, from models to observations*

