

# LHCb Early Career Initiatives

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# LHCb Early Career, Gender and Diversity Office

- Oversees the well-being and working environment of all LHCb members
- Two ECGD officers appointed on a two-year term
- Advise management on ECGD matters and available for confidential advice
- Collate regular statistics and monitor the collaborations progress
- Regular open meetings



# Early Career

- Early Career Scientist Award
- LHCb Thesis Award
- Awarded each year to early career scientists which have made an exceptional contribution to LHCb
- How do we define early career?
- Age? Time since PhD?



# The problem

- Lots to learn as a new PhD student
- Lack of tutorials and teaching
- Documentation often out of date or inexistent
- Students do not know who to ask with questions/problems
- Lots of time is wasted



# LHCb UK Student Meetings

- Regular (1 every 2-4 weeks) meetings with UK LHCb PhD students
- Advertised to UK mailing list **but** PhD students from outside the UK are also welcome
- Consist of a talk by a more senior LHCb member - overview of some aspect of LHCb

## Archive of previous student meetings

For a full listing (as far back as September 2008), see the [LHCb-UK Indico page](#) (search for "Student Meeting"):

- [May 19 2020](#): Stripping at LHCb (Nicola Skidmore) [Video recording](#)
- [April 16 2020](#): Simulation at LHCb (Phil Ilten)
- [March 26 2020](#): Introduction to Lattice QCD (Tobi Tsang)
- [February 20 2020](#): Probability, Likelihood and Confidence (Roger Barlow)
- [February 6 2020](#): The BES III Experiment (Eva Gersabeck)
- [November 28 2019](#): The Python Ecosystem in HEP (Chris Burr)
- [October 31 2019](#): PID with the RICH for the LHCb Upgrade (Giovanni Cavallero)
- [August 22 2019](#): From the Muon Puzzle to the LHC (Hans Dembinski)
- [August 8 2019](#): An Experimentalists Guide to Amplitude Analysis (Mark Whitehead)
- [April 25 2019](#): Flavour Tagging at LHCb (Manuel Schiller)
- [March 28 2019](#): The [SuperVELO](#) - plans for a future VELO Upgrade at LHCb (Mark Williams)
- [February 12 2019](#): Outreach and particle physics (Harry Cliff)
- [January 31 2019](#): Physics Coordinator Overview (Mat Charles)
- [December 11 2018](#): Simulation in LHCb + Fast Simulation (Dominik Muller)
- [November 22 2018](#): Science in Parliament (Alison Tully)
- [May 14 2018](#): [B2OC](#) summary (Dan Johnson)
- [April 23 2018](#): Goodness of fit (Diego Tonelli)
- [January 22 2018](#): The LHCb Upgrade (Massi Ferro-Luzzi)

# Startertalk

- Aimed at Early Career Scientists (PhD/ Masters students and Post Docs)
- Overview talk on some aspect of LHCb by a more senior member of the collaboration
- Held once every LHCb week (4 times a year)

The screenshot shows a Zoom event page for 'Starter Talk'. At the top, it indicates the time '17:00 → 19:00' and the title 'Starter Talk'. To the right, there is a location pin icon with '13/2-005' and a 'Join' button with a Zoom logo. Below this, the 'Convener' is listed as 'Vitalii Lisovskyi (Centre National de la Recherche Scientifique (FR))'. The main content area lists three sessions: 1. 'Introduction and welcome' at 17:00, 15m duration, with speakers 'Fabrice Desse (Centre National de la Recherche Scientifique (FR))', 'Miriam Lucio Martinez (Nikhef National institute for subatomic physics (NL))', and 'Vitalii Lisovskyi (Centre National de la Recherche Scientifique (FR))'. A 'Feedback form' link is provided. 2. 'Flavor tagging' at 17:15, 1h duration, with speaker 'Dr Manuel Tobias Schiller (University of Glasgow (GB))'. 3. 'General discussion' at 18:15, 45m duration.

17:00 → 19:00 **Starter Talk** 13/2-005 Join

Convener: Vitalii Lisovskyi (Centre National de la Recherche Scientifique (FR))

**17:00 Introduction and welcome** ⌚ 15m

**Speakers:** Fabrice Desse (Centre National de la Recherche Scientifique (FR)), Miriam Lucio Martinez (Nikhef National institute for subatomic physics (NL)), Vitalii Lisovskyi (Centre National de la Recherche Scientifique (FR))

Feedback form

**17:15 Flavor tagging** ⌚ 1h

**Speaker:** Dr Manuel Tobias Schiller (University of Glasgow (GB))

**18:15 General discussion** ⌚ 45m

# LHCb Starterkit

- Two parts: **Starterkit** (joint with ALICE and SHiP) in October/November and **Impactkit** in May/June
- General computing lessons: Python, Bash and Git + Experiment specific lessons
- Material publicly available online:  
<https://lhcb.github.io/starterkit-lessons/>
- Aimed at PhD students **but** Masters students and senior members of the collaboration are welcome



# Starterkit Ethos

- The project was started by, and is still run by, early career scientists
- Lessons are taught by PhD students or Post Docs and supervised by two 'helpers'
- The material is open and maintained by pull requests from many students
- Teaching, helping and tutorial writing is done on a voluntary basis





# Starterkit and Impactkit

## Starterkit

- Entry level introduction to general computing and LHCb specific software
- Targeted at early PhD or MSc students
- ~ 40 participants
- Also with ALICE and SHiP
- Held over 5 days: 2 days with ALICE and SHiP and 3 days LHCb specific

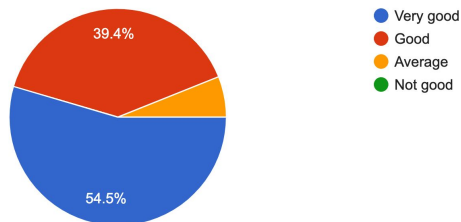
## Impactkit

- More advanced, LHCb specific tutorials
- Targeted at PhD students - end of first year or second year
- ~ 20 participants
- Held over 3 days with 2 days tutorials and 1 day Hackathon

# Starterkit and Impactkit Feedback

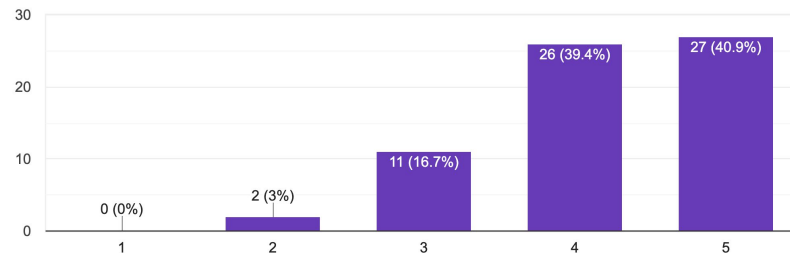
## How was the teacher?

66 responses



## How useful was the lesson?

66 responses



*"It is extremely useful, I hope you would organise many more activities like this, covering many topics."*

*"I think some lessons should last more so we can do every point of it."*

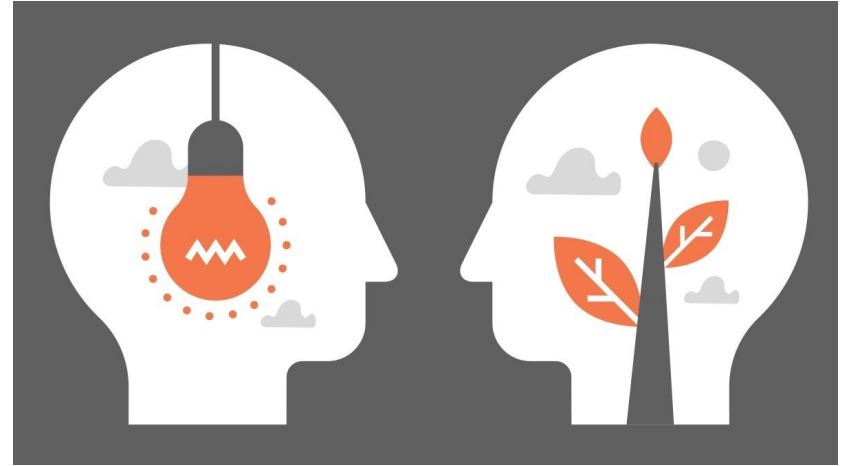
# Laura Bassi Initiative

- Junior-lead LHCb initiative bringing together people who are interested in tackling gender and diversity issues via a bottom-up approach
- Informal network to share information, provide advice and a source of support and facilitate new ideas in tackling relevant issues
- Open to anyone who may gain from this network or has an interest in contributing to tackling these issues



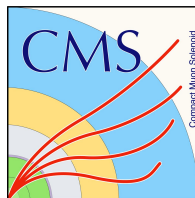
# Mentoring programme

- LHCb mentoring programme to help put early career physicists in touch with more experienced colleagues
- Several forms: regular meetings or more limited interactions such as advice on job applications / CVs



# LHC Early Career Initiatives

- ATLAS Early Career Scientist Board (7 members for 2 years)
- CMS Young Scientist Committee (~20 members with a chair for 1 year)
- Junior Community in ALICE (3 junior representatives for 2 years)
- **LHC Soft Skills Workshop:** Presentation by experts, round table discussion and Q&A session with participants
- **LHC Career Networking:** Presentations by LHC alumni, round table discussion and Q&A session with participants
- **Ice cream events:** Short talks by experts for a general audience



# ECGD Initiatives in times of COVID

- **Impactkit Student Talks 2020:** Organised a series of virtual student talks on topics which would have been covered in the Impactkit:
  - Detection Asymmetries
  - Simulation
  - Trigger
  - Stripping
- **Coffee with:** Virtual coffee breaks with LHCb colleagues  
<https://indico.cern.ch/event/936093/>
- LHC Soft Skills Workshop and LHCb Student Talks and Startertalk all virtual

# References

- LHCb UK Student Meetings: <https://twiki.cern.ch/twiki/bin/view/Main/LHCbUKStudentGroup>
- LHCb Starterkit: <https://lhcb.github.io/starterkit/>
  - Lessons: <https://lhcb.github.io/starterkit-lessons/>
  - GitHub repository: <https://github.com/lhcb/starterkit-lessons>

# References

- ATLAS Early Career Scientist Board: [atlas-ecsb@cern.ch](mailto:atlas-ecsb@cern.ch)
- Junior Community in ALICE: [alice-junior-reps@cern.ch](mailto:alice-junior-reps@cern.ch)
- CMS Young Scientist Committee: [cms-young-scientist-committee@cern.ch](mailto:cms-young-scientist-committee@cern.ch)
- LHC Soft Skills Workshops: <https://indico.cern.ch/event/906623/>
- Ice Cream events: <https://indico.cern.ch/event/914311/>



# Thank you for listening.

## Any questions?