

# Edinburgh PPE Group



- **Group overview**

- Staff and PhD students
- Recent successes
- Infrastructure
- Support
- **New Web Pages**

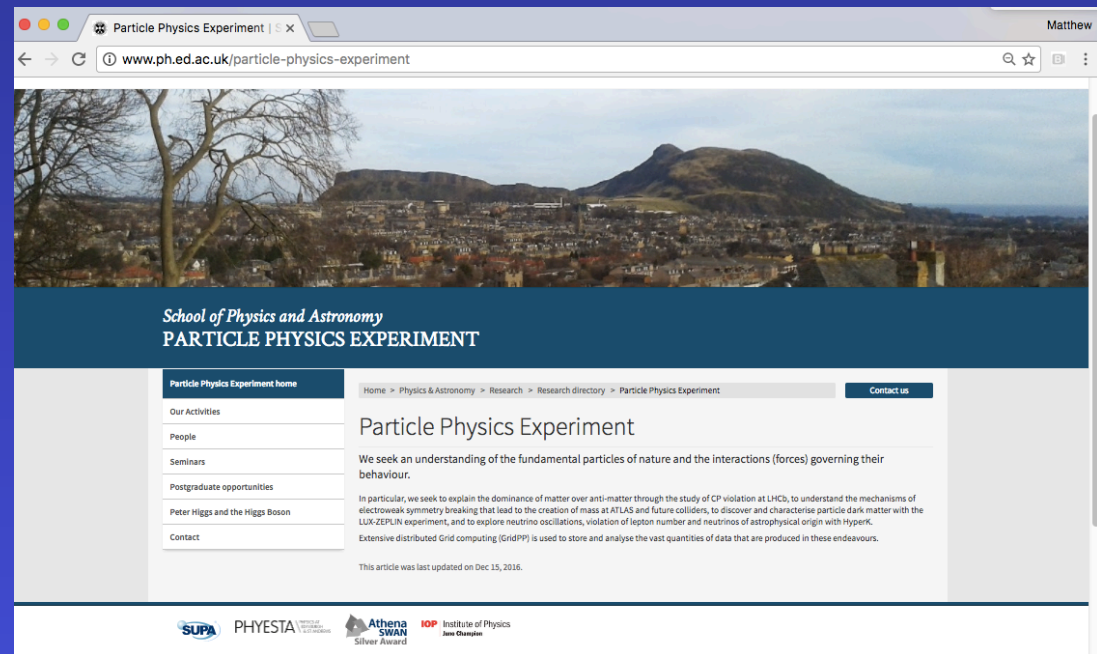
- **PPE Activities**

- ATLAS
- LHCb
- GridPP
- Neutrinos
- Dark matter
- Detector R&D
- Outreach

Franz Muheim  
15 December 2017  
PPE Group meeting

More information available  
Group web pages

<https://www.ph.ed.ac.uk/particle-physics-experiment/>



# PPE Group Staff



- **Academics**

- Phil Clark
- Pete Clarke
- Christos Leonidopoulos
- Victoria Martin
- Franz Muheim
  - Head of Group
- Matt Needham
- Steve Playfer
- Alex Murphy \*\*\*

- **Advanced Fellows**

- Greig Cowan (STFC ERF)

\*\*\* also member of Nuclear Physics group

- **Honorary & visiting academics**

- Fabiola Gianotti
- Ken Peach
- Alan Walker

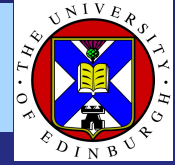


# PPE Group Staff & Students

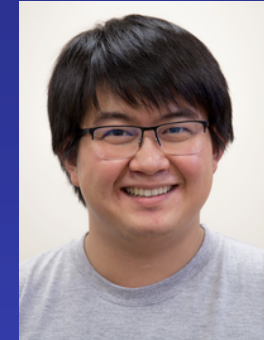
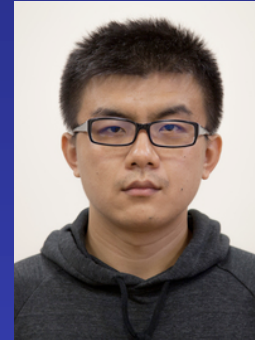


- **~15 (soon 18) Senior Scientists / Post docs / Technical Staff**
  - Stephan Eisenhardt, Andy Washbrook,
  - Jon Webster (technician), Bojan Masic (technician),
  - Ben Wynne, Silvia Gambetta,
  - Lilia Drakopoulou, Liza Mijovic, Ahmed Hasib, Rob Currie,
  - Antonia Struebig, Michele Faucci Gianelli, Jim Stuart (engineer)
  - Xin Ran Liu, Teng Li, Marco Pappagallo, \*\*\*
  - 1 more RA position soon to be filled (DUNE) \*\*\*
- **~15 PhD Students**
  - Thomas Davison, Xanthe Hoad, Iwan Smith, Maria Francesca Marzioni
  - Konstantin Gizdov, Andres Søgaard and Alan Taylor
  - Emmy Gabriel, Matthew Heath, Athoy Nilima, Mahdi Taani, Yixuan Zhang, Jennifer Zonneveld
  - Elisabeth Leason, Stefano Petrucci, Emily Takeva \*\*\*
  - \*\*\* new

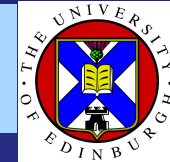
# Staff Joining and Leaving



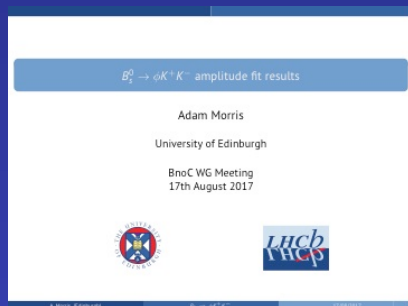
- **Joining: Welcome to**
  - 3 new RAs since last meeting
  - **Teng Li** - GridPP & LSST
  - **Xin Ran Liu** - Dark matter
  - **Marco Pappagallo** - LHCb
- **Leaving: Best wishes to**
  - **Laurence Carson**



# Recent Student Successes



- PhD Students - submitted, viva-ed, (graduated in 2016)
  - Adam Morris → RA at Edinburgh for 3 months  
→ RA CPPM Marseille

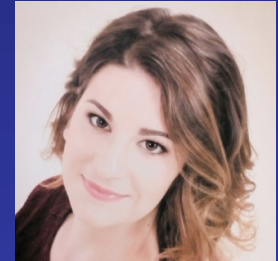


# PhD recruitment



- **PhD students 2017 intake**

- Three new students started in Sept/Oct 2017
- Elizabeth Leason (Durham) STFC - Dark matter
- Emily Takeva (Birmingham) STFC - ATLAS



- **CDT in Data Intensive Science**

- Edinburgh was awarded a CDT in Data Intensive Science
- Stefano Petrucci (La Sapienza Roma) STFC - LHCb
- Expect this scheme to be renewed
- Note there may be further STFC funded places to come



- **PhD students 2018**

- PhD students recruiting for Sept 2018 has started
- Matt Needham is coordinating

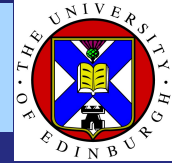
# Undergraduate & MSc Teaching



- **Undergraduate MPhys and MSc students**
  - projects available on ATLAS, LHCb, DM and neutrino experiments data analysis and detector development
  - project available on Hyper-K, dark matter and Linear Collider
  - Current MPhys student about to graduate:  
Tran Tu thong - Ryan, Neil McBlane
  - MSc Students about to start project: ANO
  - Re-Visiting project student: Marion Lehuraux (LHCb)
  - Make them feel welcome
- **Undergraduate Teaching**
  - Muon lifetime and mass measurements
  - Testing new detectors - LAPPD
  - Analysis and computational projects



# Undergraduate & MSc Teaching



- **Summer students**

- Opportunities for you
- School offers competition for bursaries
- Group also offers summer studentships
- In total ~10 summer students in June & July
  - Connor Minnis (DUNE)
  - Philip Aitken (LHCb)
  - Ralph Pompeus (LHCb photodetectors)
  - Craig Robertson (SiPMs)
  - Marina Sanches-Oro (Hyper-K photodetectors)
  - Tran Tu thong - Ryan (LHCb)
  - Lorenzo Principe (ANNIE)
  - ...
- Some really nice results were achieved, e.g. measuring time resolution of SiPMs

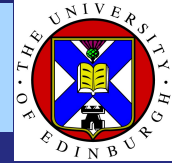


# PPE Activities



- **ATLAS**
  - ATLAS Fast Calorimeter Simulation, see talk by Hasib
- **LHCb**
  - Discovery of excited  $\Omega_{cc}^{**}$  particles, see talk by Marco
- **Dark Matter**
  - Sense and Sensitivity: A Christmas Dark Matter special, see talk by Xin Ran
- **Hyper-K**
  - Obtained new grant for 2017 to 2019
- **DUNE**
  - PPE joined in early 2017, obtained grant for 2017 to 2019
  - UK government has pledged £65M for DUNE and Fermilab proton beams and LBNF target

# PPE Activities



- **GridPP**
  - Data Storage
  - Ask *Pete, Rob* and *Andy Washbrook* if you are interested
- **Detector Development**
  - ATLAS and LHCb Upgrade, Hyper-K, DUNE
  - Excellent facilities in *Advanced Detector Development Centre (ADDC)*
  - Have started working with new types of photon detectors - *LAPPDs*
  - Ask *Stephan et al.* if you are interested
- **Higgs Centre of Innovation (HCI)**
  - HCI Building on Blackford Hill will be ready in 2018
  - HCI includes CERN Business Incubator → Opportunities for people wishing to start their own company

# PPE Activities



- **MSc Teaching**

- Currently School has MSc in Mathematical and Theoretical Physics
- Works well and brings in money (from overseas students)
- University approved proposal for **MSc in experimental particle and nuclear physics**
- First intake 2018/19 - spread the news

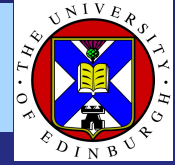
- **Group web pages**

- Migrated to new web pages end of last year
- Need to keep it "alive", any volunteers?

- **Outreach**

- Peter Higgs web page <http://www.ph.ed.ac.uk/higgs> maintained by **Victoria Martin** and **Alan Walker**
- **Particle Physics for Scottish Schools (PP4SS)** please join **Alan** when he is asking for volunteers, it is fun!

# PPE Group - Infrastructure



- **Offices**

- 5301, 5302 - PhD students
- 54nn corridor, 4311 - Academics/Fellows/RAs

- **Conference room**

- 5202 - Audiovisual equipment for Vidyo, Skype
- Book via Google calendar - Edinburgh PPE
- Coffee and Tea facility

- **Laboratories**

- 5201 - HPD Photon Detector Test Facility
- 5203, 5203b, 5204 - Advanced Detector Development Centre
- 5207 - Teaching Laboratory - Muon Lifetimes
- 5207 - MaPMT Photon Detector Test Facility

# PPE Group - Support



- **Admin**

- General - Gill Maddy, Tracy Brown and team  
email - [admin-general@ph.ed.ac.uk](mailto:admin-general@ph.ed.ac.uk)
- PhD students - Liz Paterson [liz@staffmail.ed.ac.uk](mailto:liz@staffmail.ed.ac.uk)

- **Computing Support**

- Andy Washbrook (group support)
- Sean McGeever and team (School CST)

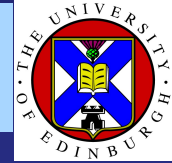
- **Finance**

- Joanna Richards and team (Finance)  
email accounts - [accounts@ph.ed.ac.uk](mailto:accounts@ph.ed.ac.uk)

- **Procurement**

- ask us if you need something  
Andy Washbrook for computers,  
Jon Webster, Stephan Eisenhardt, FM for kit

# PPE Group - Support



- **Travel**

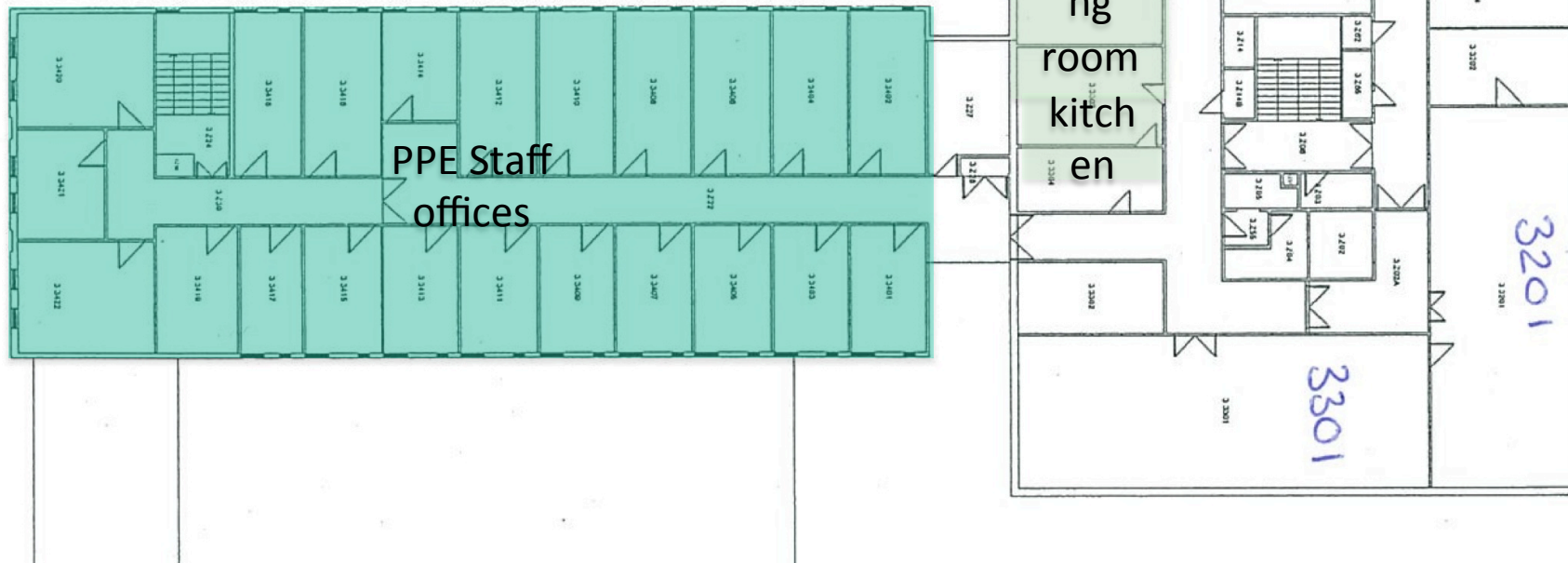
- Most of us book our own travel, but you can ask General Admin - Tracy Brown, Gill Maddy and team [admin-general@ph.ed.ac.uk](mailto:admin-general@ph.ed.ac.uk)
- For PhD students, ask Liz Paterson [liz@staffmail.ed.ac.uk](mailto:liz@staffmail.ed.ac.uk)
- For STFC experiment travel (569RAL), may need to fill in UK PP travel notice at <https://pprc.qmul.ac.uk/~lloyd/travel/travel.php?page=login>
- TBD - Info on ATLAS and LHCb Wiki will migrate to group Wiki
- eExpenses - new system yet again
- Please make sure you use correct cost centre/job code combinations

- **Travel insurance**

- You need to have travel insurance - provided by university, but each trip has to be arranged by sending email to admin team
- If you travel a lot you might consider taking out travel insurance

# Possibly Moving in 2018?

- Remove 3304 to widen corridor
  - Remove internal walls, rearrange separation between meeting room and PhD student office
  - Renovate window
  - Renovate floors, ceilings, doors
  - Furnish offices, kitchen
  - Consider glass walls into corridor
- Renovate 34xx corridor and its offices



# Final Comments



- **Regular PPE group fixtures**

- **PPE academics meeting**

- 1<sup>st</sup> Tuesday each month

- **All group PPE meeting twice per year**

- Next meeting will be in spring
- Group members are usually going to **lunch** at 12 noon in School Coffee room 4318
- Bring you own food or buy it on Campus or Magnet Café
- Other option - Swann building 7<sup>th</sup> floor
- New lunch options on campus - student union has been revamped, Café - Mary Brück Building

- **Group coffee**

- Every Wed 3pm or after seminar in 5202



# Backup slides



# PPE Group - Roles



- **Research groups and CERN specifics**
  - Registration and renewals via project leader:  
Phil for **ATLAS** and Franz for **LHCb**
  - Need Home Institute Declaration - forms
  - Pete is **GridPP** group leader
  - Matt is **Hyper-K** group leader
  - Alex is **LUX/LZ** group leader
  - Franz is **DUNE** group leader
- **Seminars organiser**
  - Greig Cowan
  - please send him names of possible speakers
- **PhD recruitment**
  - Matt
  - PhD students recruiting for Sept 2018 has started