

Edinburgh PPE Group



- **Group overview**

- Staff and PhD students
- Recent successes
- Infrastructure
- Support

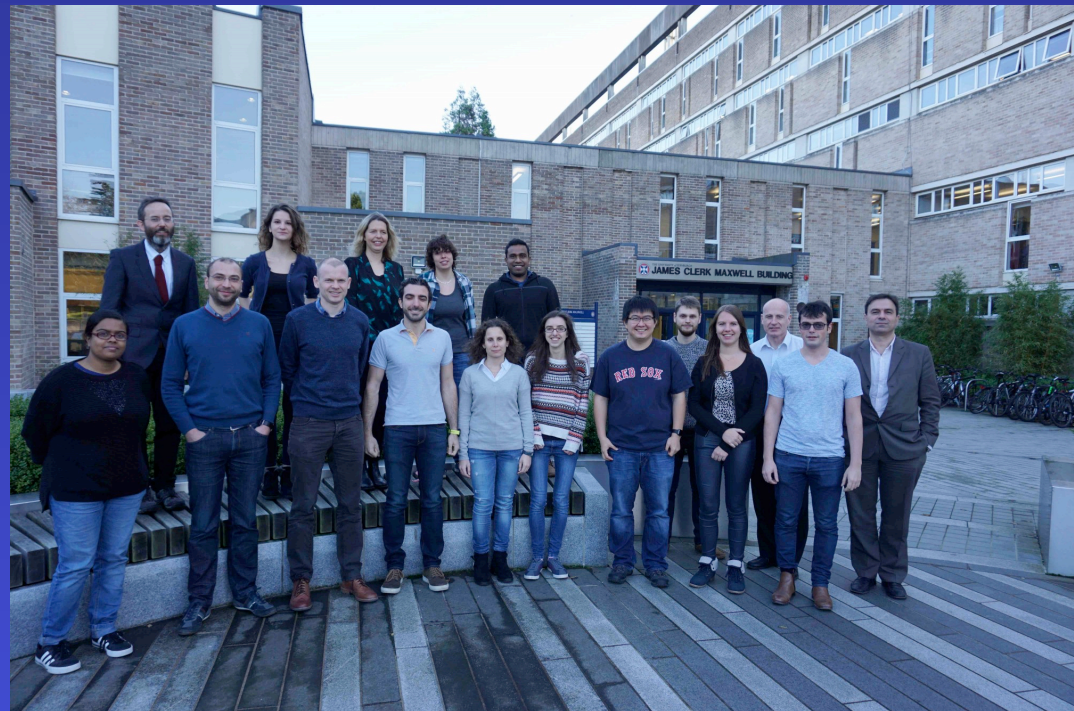
- **PPE Activities**

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

Franz Muheim
14 December 2018
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
- Sinead Farrington 
- Christos Leonidopoulos
- Victoria Martin
- Franz Muheim
 - Head of Group
- Matt Needham
- Steve Playfer
- Alex Murphy ***

*** also member of Nuclear Physics group

- **Welcome to**



- Congratulations to your ERC grant

- **Honorary & visiting academics**

- Fabiola Gianotti
- Ken Peach
- Alan Walker

PPE Group Staff & Students



- ~20 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
- Xin Ran Liu, Teng Li, Marco Pappagallo
- Miquel Nebot, Serena Palazzo, Gary Smith ***

- ~20 PhD Students

- Thomas Davison, Xanthe Hoad, Iwan Smith
- 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
- Thomas Carter, Sara Mitchel, Neofytos Themistokleous, Elena Villhauer ***
- *** new

Staff Joining and Leaving



- **Joining: Welcome to**

- 3 new RAs since last meeting
- Miquel Nebot - DUNE
- Serena Palazzo - ATLAS
- Gary Smith - WATCHMAN



- **Leaving: Best wishes to**

- Greig Cowan
→ Data scientist at RBS
- Andy Washbrook
→ Cardiff University



Recent Student Successes

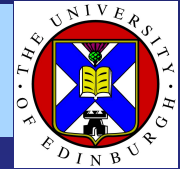


- PhD Students - submitted, viva-ed, graduated in 2018
 - Maria Francesca Marzioni → Data scientist, Almawave, Rome, Italy



- Xanthe Hoad - submitted and viva-ed
- Iwan Smith - submitted

PhD recruitment



- PhD students 2018 intake

- Four new students started in Sept/Oct 2017
- Thomas Carter STFC - ATLAS
- Sara Mitchell STFC - LHCb
- Neofytos Themistokleous - ATLAS
- Elena Villhauer - ATLAS



- PhD students 2019

- PhD students recruiting for Sept 2019 has started
- Matt Needham → Sinead Farrington are coordinating



PPE Activities



- **ATLAS**
 - Top and machine learning, talks by Michele and Andreas
- **LHCb**
 - RICH upgrade and TORCH, talks by Silvia and Emmy
- **Dark Matter**
 - Double act, talk by Athoy and Elizabeth
- **DUNE / Hyper-K**
 - DUNE talk by Miquel
- **Watchman**
 - PPE group joined in May 2018
 - PMT testing, talk by Gary
- **GridPP, CLIC, future Colliders**
 - PPE group joined in May 2018

PPE Activities



- **GridPP**
 - Ask Pete, Rob and Andy Washbrook if you are interested
- **Detector Development**
 - ATLAS and LHCb Upgrade, Hyper-K, DUNE, WATCHMAN
 - 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
- **Seminars**
 - Xin Ran Liu is organising seminar
 - Please contact him with suggestions
 - You are expected to attend
- **Group web pages**
 - Need to keep it "alive", any volunteers?

PPE Activities



- **Higgs Centre of Innovation (HCI)**

- HCI Building on Blackford Hill has opened in May 2018
- HCI includes CERN Business Incubator
→ Opportunities for start-ups and people wishing to start their own company
- Beyond the Lab 24 Jan 2019
 - Astronomy and Particle Physics in Business



- **Outreach**

- by Victoria Martin and Alan Walker
- Particle Physics for Scottish Schools (PP4SS)
please join Alan when he is asking for volunteers, it is fun!
- Need to join Masterclasses



Undergraduate & MSc Teaching



- **Undergraduate MPhys and MSc students**
 - projects available on ATLAS, LHCb, DM and neutrino experiments data analysis and detector development
 - Current **MPhys students** working hard
 - Georgia Clark, Bine Stancic, Karel Vesely,
 - Yusong Tian, Gary Robertson, Ewan Miller
 - Lorenzo Principe, Zaid Estifa'a
 - **MSc Students**
 - Projects are being assigned
 - Will prepare for project in summer
 - Make them feel welcome
- **Undergraduate Teaching**
 - Muon lifetime and mass measurements
 - Testing new detectors - LAPPD
 - Analysis and computational projects

Undergraduate & MSc Teaching



- **MSc in experimental particle and nuclear physics**
 - First intake 2018/19 *has started*
 - School has also MSc in Mathematical and Theoretical Physics
 - Works well and brings in money (from overseas students)
 - *Advertising* for 2019/20 intake has started - spread the news
- **MSc - New Courses**
 - Current Topics in Particle Physics
 - Medical Physics
 - *Research Skills in Particle & Nuclear Physics*
 - *Detectors in Particle and Nuclear Physics*
 - *Programming, Data Analysis and Machine Learning*
 - Also use existing courses

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
 - John Devenport (MCP-PMT)
 - Elias Melas (DUNE)
 - Ben Wade (DUNE)
 - Gary Robertson (Watchman)
 - Chin Yi Tan (Watchman)
 - Tran Tu thong - Ryan (LHCb)
 - Harsh Rathee (LHCb)
 - Samantha Willis (Watchman)
 - Simone Giovinazzo (ATLAS)
- Some really nice results were achieved

PPE Group - Support



- **Admin**

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

- **Computing Support**

- Andy Washbrook replacement/Rob Currie (group support)
- Sean McGeever and team (School CST)

- **Finance**

- Joanna Richards and team (Finance)
email accounts - 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
- For PhD students, ask **Liz Paterson** 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**

PPE Group - Infrastructure



- **Offices**

- 5301, 5302 - PhD students
- 54nn corridor, 4311 - Academics/Fellows/Ras will move to 34xx corridor

- **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

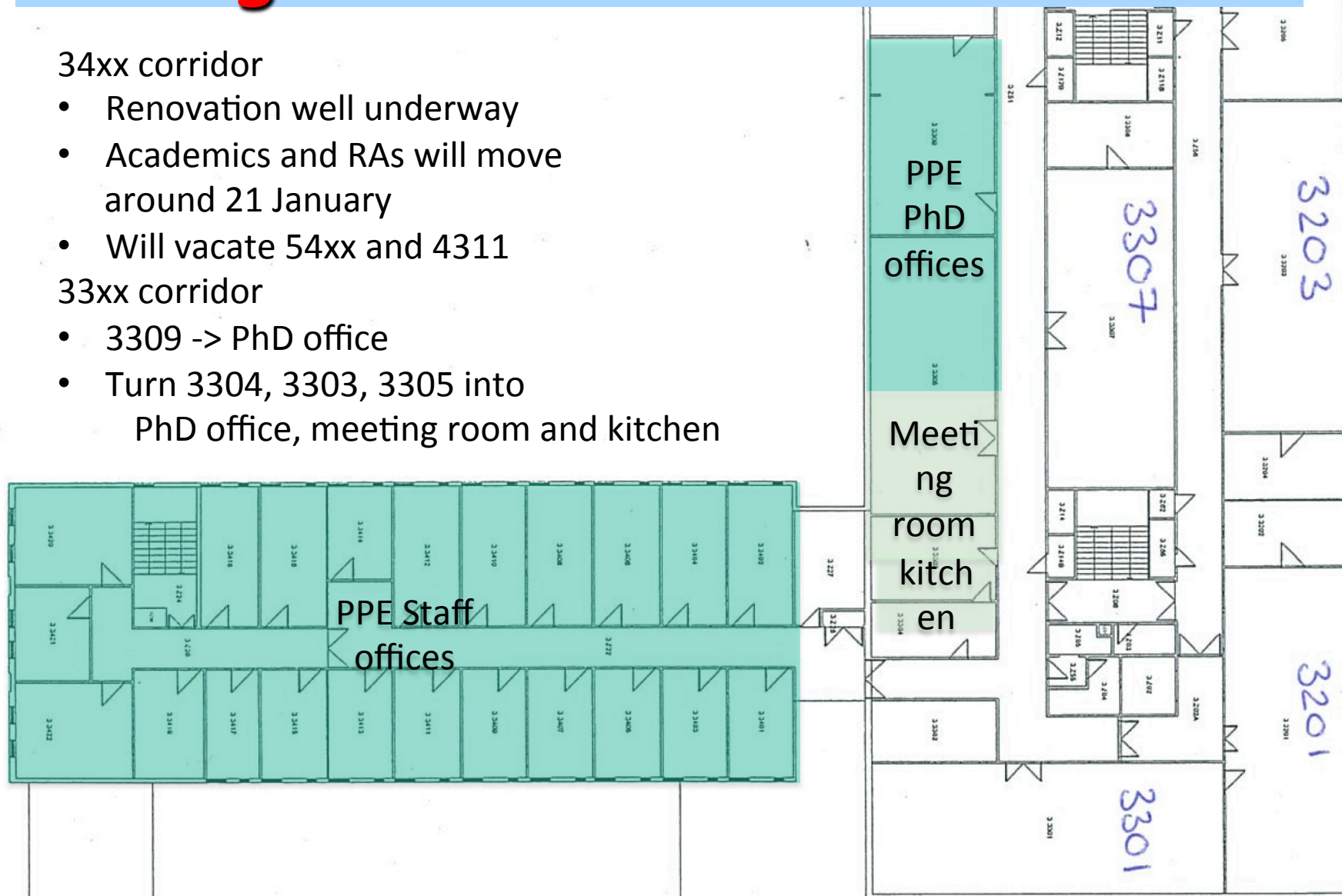
Moving in 2019

34xx corridor

- Renovation well underway
- Academics and RAs will move around 21 January
- Will vacate 54xx and 4311

33xx corridor

- 3309 -> PhD office
- Turn 3304, 3303, 3305 into PhD office, meeting room and kitchen



Final Comments



- **Regular PPE group fixtures**
 - PPE academics meeting
 - 1st 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 7th 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**
 - Xin Ran Liu
 - please send him names of possible speakers
- **PhD recruitment**
 - Matt Needham -> Sinead Farrington
 - PhD students recruiting for Sept 2018 has started