SENIOR PERSPECTIVES

Panel Bios

UK ECR HEP-ex Jobs Event, 24th June 2024

PROFESSOR JON BUTTERWORTH

Jon is an experimental particle physicist working on ATLAS, and professor of physics at UCL. He grew up in Manchester, did his BA and DPhil at Oxford, then moved to DESY, Hamburg, to work for Penn State University on the ZEUS experiment at the HERA electron-proton collider. He joined UCL in 1995, and was Physics Chair of ZEUS in 2003-2004. He wrote some of the first papers on jet substructure at the LHC and was Standard Model convenor of ATLAS during first data taking (2010-2012). He is a founding member of the MCnet collaboration on event generators and related tools. He has written two books and many articles on particle physics for the general public. He was head of the department of Physics & Astronomy at UCL (2011-2017), is (outgoing) scientific advisor to the UK CERN council delegation and was UK delegate to the European Strategy for Particle Physics updates in 2013 and 2020. He is a member of STFC Council and UCL Council. He has sat on the FLF panel.

PROFESSOR MONICA D'ONOFRIO

Monica has been a Professor at the University of Liverpool since 2017 (STFC Advanced Fellow until 2014), Head of Research and Deputy Head of Department since end of 2020, member of STFC Science Board PPAN since 2023, and elected member of Senate at University of Liverpool since 2022. Her research activities focus on searches for SUSY, dark matter, leptoquarks, hidden sectors and long-lived particles, carried out in ATLAS and, more recently, also at FASER. She is the incoming ATLAS UK PI (deputy until 2025), FASER UK PI, and team leader of the Liverpool ATLAS & FASER groups. She collaborates with experimentalists and theorists, nationally and internationally, for future facilities' plannings and medium to long-term HEP projects. These include: the upgrade of the ATLAS detector at the HL-LHC; a proposed electron-proton facility at CERN (LHeC) to be built in parallel to the HL-LHC, for which she coordinate the general-purpose high-energy physics programme; the proposed Forward Physics Facility (FPF) at CERN; and the Future Circular Collider (FCC, focus on ep and pp). She exploits modern data-analysis tools based on AI/ML, and co-initiated an international consortium with computer and medical scientists for the development of explainable AI tools to be applied also in medical physics and neuroscience.

PROFESSOR BEATE HEINEMANN

Beate is a Full Professor at the Universität Hamburg and has been director of DESY for the area of Particle Physics since 2022. She is the spokesperson for the LUXE collaboration, which aims to study QED in the strong-field regime where it becomes non-perturbative and which she also founded. Before that she was the deputy spokesperson for ATLAS (2013-2017).

She has held PPARC and Royal Society University Fellowships at the University of Liverpool, before progressing from Associate to Full Professor at UC Berkeley, whilst holding a Staff Scientist position at LBNL. She then moved to Albert-Ludwigs-Universität Freiburg before her current position.

Beate is a member of several national/international committees, including the P5 committee in the USA, the CEPC international advisory committee, the FCC Steering Committee and the International Committee for Future Accelerators. She is on the selection committee for ERC Advanced Grants, and was in part of the PPG for the last round of the European Particle Physics Strategy update.

PROFESSOR DAVE NEWBOLD

Dave is STFC's Executive Director for National Laboratories, Science and Technology. He has responsibility for STFC's delivery across particle physics and astronomy, accelerators, computing, and quantum technologies, and oversees the efforts of over 1500 staff including many early-career researchers. He is chair of the European Laboratory Directors Group, and was previously STFC Director of Particle Physics. Dave has participated in hiring and fellowship committees in several countries and laboratories, and has supervised the efforts of many of his own students and postdocs. He is now officially old*, as measured by the established metric of one of his PhD students having obtained a professorship...

*His own words, not ours ☺!

PROFESSOR DAN TOVEY

Dan is a member of the ATLAS, LZ and XLZD collaborations at the University of Sheffield. In the distant past he chaired the UK CERN Fellowships panel, and he has just finished 6 years as a core member of the Royal Society URF panel that reviews applications in particle physics and astronomy. He is also a member of the Swiss national science foundation consolidator grants panel. Dan has held a few fellowships himself in the past - a PPARC postdoctoral fellowship (many years ago), a Leverhulme Trust research fellowship and, most recently, an ERC Advanced Grant.

DR MELISSA UCHIDA

Melissa is an Associate Professor / Senior Lecturer in High Energy Physics at the Cavendish Laboratory, University of Cambridge and leads the neutrino group. She is a trustee of the Institute of Physics (IOP) and is chair of IOP's Particle Accelerator and Beams High Energy Physics groups.

She obtained her PhD from Queen Mary University of London, working on the T2K Neutrino Oscillation Experiment in Japan, she then became a postdoctoral fellow at Sussex University working on the cryogenic Neutron Electric Dipole Moment Experiment at ILL Grenoble, before joining Imperial College London to work on the Muon Ionization Cooling Experiment and High Pressure Gas TPC. She and her colleagues won the Breakthrough Prize in 2016 for their role in Neutrino Oscillation Research.

Her research interests include: short and long-baseline neutrino oscillation experiments -- in particular the MicroBooNE and DUNE experiments; and accelerator physics developments towards the Muon Collider. She has been chair of the DUNE Speakers board since 2020.

PROFESSOR NIGEL WATSON

Nigel is a professor at Birmingham University, and works on physics analysis and core simulation in the LHCb Experiment at CERN. He also has interests in detector development for future Particle Physics experiments, having focused in the past on ILC Beam delivery collimators, and future collider calorimeter R&D.

Nigel was based at CERN from 1990-1998, and has been a CERN Research Fellow, a PDRA at CRPP/Carleton Univ. (Ottawa, Canada), a PPARC Advanced Fellow, Permanent Staff at Rutherford Appleton Laboratory, and a Fellow at Birmingham University, where he became a member of academic staff in 2005. He is currently the UK PI for the LHCb experiment. At various times he has been on the PP Grants Panel, the panel for STFC Ernest Rutherford Fellowhips, and various committees/reviews for STFC.