

## Meet Your Summer School Staff



**Dr Ben Still, St Paul's School. Summer School Organiser, LEGO workshops & Lecturer.**

Ben has always enjoyed figuring out how the world works and how it is made, a curiosity which led to a passion for physics. Ben completed a Masters in Physics with Space Science and Technology after a childhood obsessed with space travel. In his final years of the degree he discovered particle physics and his career changed path.

He completed a PhD at the University of Sheffield working on an experiment in Japan investigating the strange behaviour of neutrino particles. Ben moved to Queen Mary University of London where he continued to work as a research associate for five more years, During this time Ben discovered the thrill of science communication and decided to move into teaching. Ben joined St Paul's School in January 2018 after a six month around the world honeymoon with his wife. Alongside teaching Ben is an international bestselling author of popular science books and regularly delivers public talks at science festivals across the country.



**Ms Janet Mee, St Paul's School. Summer School Organiser.**

Janet has been running partnership programmes here at St Paul's for many years and ensure everything runs smoothly. She is a keen rower and regularly helps out with the St Paul's Rowing Club.

**Mr Joseph Swartzentruber, St Paul's School. Identifying particles and using particles to see the world workshops.**

Joe used to be a student here at St Paul's and loved it so much that he returned to teach physics. Joe has been teaching physics at St Paul's for two years now and is a fantastic explainer of complex things - get excited about his workshops!



**Ms Victoria Cripps, St Paul's School. Summer School pastoral care.**

Victoria works in the Art department and Library at St Paul's. She is the go to person if you're not feeling too well or need to talk to someone.

**Dr Seth Zenz, Queen Mary University of London.** Higgs Boson Lecture, Higgs Hunting Computing workshop, Feynman Diagram workshop.

Seth Zenz is an expert on the Higgs boson who became a Lecturer in the Queen Mary University of London in 2018. He completed his PhD in 2011 at the University of California, Berkeley, studying early Large Hadron Collider (LHC) data. Subsequently, as a researcher at Princeton University and Imperial College London, he led a range of measurements of the Higgs boson. Motivated by the central role of charged particle tracking in all Higgs boson measurements, he has worked on the construction, operation, and upgrade of several silicon pixel detectors for LHC experiments; his current project is the ATLAS Inner Tracker.



**Dr Marcella Bona, Queen Mary University of London.** Careers Talk.

**Professor Peter Kalmus OBE, Queen Mary University of London.** Physics in the wider world lecture.

Peter Kalmus has carried out research in particle physics at accelerators in the UK, USA, Germany and CERN. His early work was mainly in the physics of strongly-interacting particles (hadrons), and this with many other experiments helped to establish the quark model (that hadrons are made of quarks and gluons). Work at the CERN proton-antiproton collider discovered the W and Z particles, the carriers of the weak force. At the HERA collider in Hamburg in the 1990s, electrons (or their antiparticles) probed the properties of the proton. Peter enjoyed teaching physics from A-level to postgraduate level, and has given numerous talks to schools and other audiences. He has been at Queen Mary since 1964 and was Head of Physics for 5 years.



**Dr Ulla Blumenschein, Queen Mary University of London.** Particle Accelerators Lecture.



Ulla Blumenschein is an expert in particle physics, in particular on the strong force and searches for new particles and forces. She completed her PhD in 2005 at the University of Freiburg, where she searched for new particles, predicted by the theory of Supersymmetry, at the Fermi National Laboratory near Chicago. Subsequently, as a researcher at IFAE in Barcelona, Spain, she had a leading role in the commissioning and operation of the hadronic calorimeter detector in the ATLAS experiment at the Large Hadron Collider at CERN. In 2008, she started as a research assistant at Goettingen University, Germany, where she lead several key measurement of the strong force and participated heavily in the search for the Higgs boson. For several years, she coordinated precise measurements of the fundamental forces at the LHC. In 2016, she became a lecturer at the Queen Mary University of London, where she is searching for additional heavy Higgs bosons.

**Dr Alison Elliot, Queen Mary University of London.** Particle Detectors Lecture.

Alison Elliot is a Postdoctoral Research Assistant at the Queen Mary University of London. She looks for dark matter particles by smashing together protons and looking for momentum imbalances in the ATLAS detector. She also works on the hardware-level calorimeter trigger, which tells the ATLAS detector when an event is interesting and signals to record it. Before moving to London, Alison did her PhD and BSc in Canada, at the University of Victoria, and has always had a keen interest in mathematics and astronomy. However, since learning that quarks have 'flavour' and 'colour', couldn't help but become a particle physicist.



**Dr Mark Stringer, Queen Mary University of London.** Neutrinos lecture.



I am a Postdoctoral researcher on the SNO+ experiment. The main purpose of SNO+ is to search for incredibly rare radioactive decays in order to explain how neutrinos get their mass. My main areas of research are neutrinos produced in a supernova, which are thought to be crucial to cause the explosion of the star; and how muons, particles produced in large showers when high energy particles collide with the atmosphere interact within the SNO+ detector.

**Miss Lorna Nolan, Queen Mary University of London.** Identifying particles and using particles to see the world workshops.

