

UK Involvement

7th FPF Meeting

1/3/2024



Rutherford Appleton Laboratory



FPF UK | Existing involvement



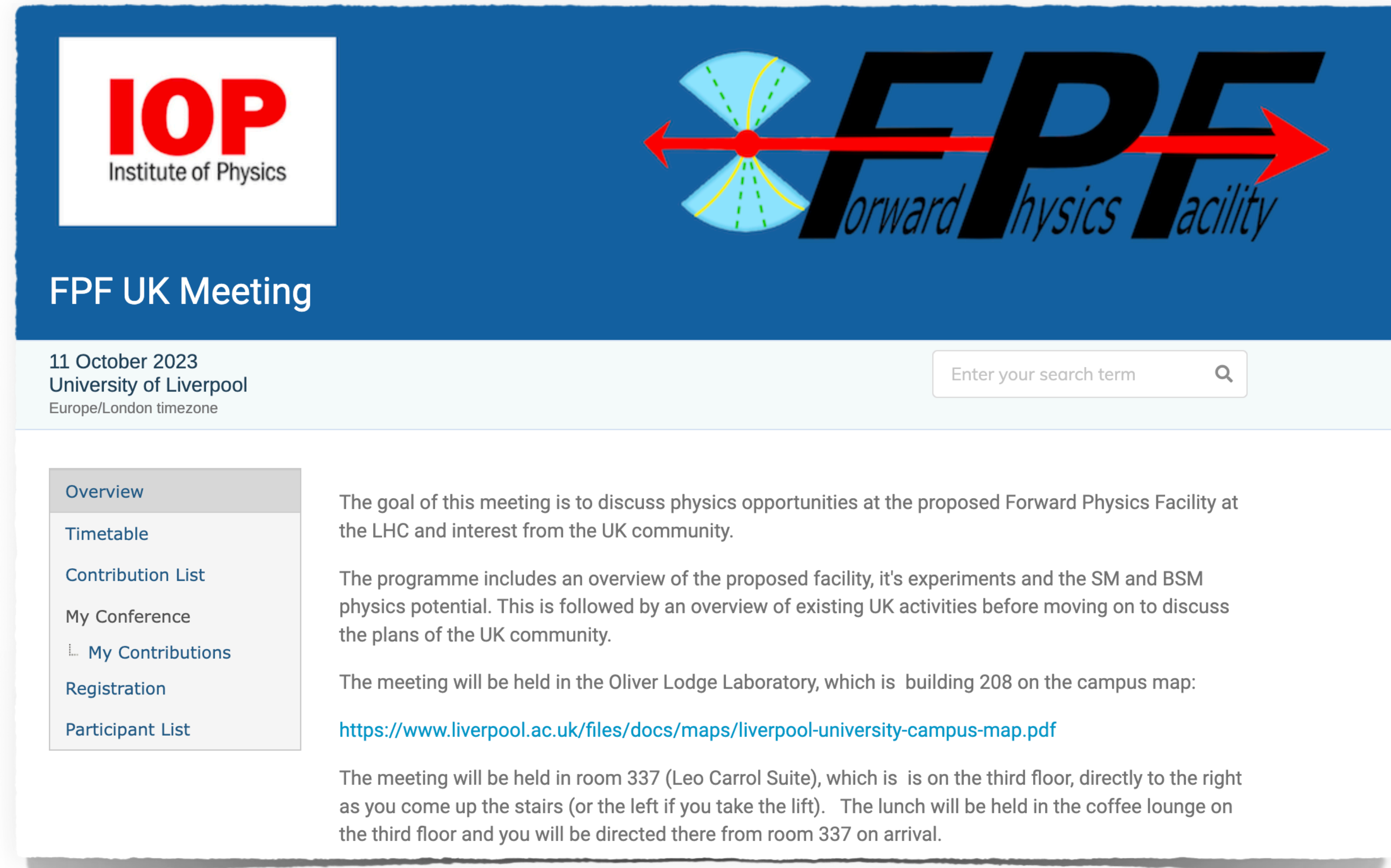
- ▶ FASER and SND@LHC running successfully with UK involvement and leadership.
- ▶ Providing proof-of-principle for FPF
- ▶ Significant input from UK institutes in FPF R&D
 - ▶ FASER2: Physics exploitation, detector construction in the area of calorimeter, tracking and infrastructure
 - ▶ FLArE: Interest in optical readout from Liverpool (as shown in slides by Steve yesterday)
 - ▶ Beam simulation: BDSIM, neutrino fluxes
 - ▶ Theory: Astro-particle, Generators, BSM
- ▶ Next step is to formalise, and ideally increase, UK participation
 - ▶ Led to UK FPF meeting...



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- ▶ Particle Physics Advisory Panel meeting in July
- ▶ Significant interest in FPF
- ▶ Led to dedicated FPF UK meeting in October
- ▶ Significant interest and participation
 - ▶ Over 10 institutes
 - ▶ ~35 people



The screenshot shows the website for the FPF UK Meeting. At the top left is the IOP Institute of Physics logo. To its right is a large graphic featuring a particle detector cross-section and the text 'FPF Forward Physics Facility'. Below this is the title 'FPF UK Meeting'. The date and location are listed as '11 October 2023, University of Liverpool, Europe/London timezone'. A search bar is present on the right. A navigation menu on the left includes 'Overview', 'Timetable', 'Contribution List', 'My Conference', 'My Contributions', 'Registration', and 'Participant List'. The main content area contains three paragraphs: the first states the meeting's goal is to discuss physics opportunities at the proposed Forward Physics Facility at the LHC; the second describes the program's structure, including an overview of the facility and UK activities; the third provides the meeting location (Oliver Lodge Laboratory, building 208) and a link to the campus map. The final paragraph specifies the meeting room (337) and the lunch location (coffee lounge).

- ▶ Recent Consolidated Grant (next 4-years) submissions in the UK
 - ▶ Dedicated experimental submission on FASER
 - ▶ Ambitions to work on FPF expressed, with links to existing DRD projects
- ▶ Planning submissions to the main particle physics funding body: STFC
 - ▶ There are different avenues to raise FPF with STFC:
 - ▶ Examples are “Visions”/“Statement of Interest” schemes
 - ▶ They target: “early-stage concepts with potential to be developed into ambitious initiatives/infrastructures” and “participation in new experiments or missions”.
- ▶ Timeline driven by timescale for FPF Lol to CERN in early 2025
 - ▶ Plan is to make submission to STFC in the next months, not much later than the timescale of the PBC update document
 - ▶ Had been waiting for P5 and North Area decisions before submission
 - ▶ Statements of Interest are reviewed in quarterly Science Board meetings