PERSONAL INFORMATION

Name: Michael Pitt

Inspire: INSPIRE-1182145, ORCID: 0000-0003-2461-5985

• EMPLOYMENT HISTORY

2024 – Experimental Physicist (Research Staff)
EP Department, CERN, Geneva; Switzerland
Research topics: Soft QCD and EW Physics at the LHC, FCC-ee

2022 – 2024 Postdoctoral researcher
Department of Physics, The University of Kansas, Lawrence, USA & Department of Physics, Ben-Gurion University of the Negev, Israel (joint affiliation)
Research topic: Forward physics at the LHC and the future Electron-Ion Collider

2019 – 2022 Senior Research fellow,
EP Department, CERN, Geneva; Switzerland
Research topics: Diffraction, exclusive processes, forward physics, top quark

2018 – 2019 Postdoctoral researcher
Department of Particle Physics and Astrophysics, Weizmann Institute of Science, Israel
Research topics: Studies of multi-jet QCD events, Particle-Flow using Deep Learning

• EDUCATION

2012 – 2018 PhD in Physics: "*Experimental research in particle physics: Characterization of gas-avalanche THGEM particle detector and physics-data analysis with the ATLAS experiment",* CERN-THESIS-2018-224
Department of Particle Physics and Astrophysics, Weizmann Institute of Science, Israel
Supervisors: Prof. Amos Breskin & Prof. Eilam Gross

2009 – 2012 Master: "*Experimental research in particle physics: Detector development and data analysis",* 2012 JINST TH 003
Department of Particle Physics and Astrophysics, Weizmann Institute of Science, Israel

2006 – 2009 Bachelor, Bar-Ilan University, Ramat-Gan, Israel
Double major in Physics and Theoretical Mathematics (with honours)

• FELLOWSHIPS AND AWARDS

2019 – 2022 Senior Research fellow, EP Department, CERN, Geneva; Switzerland

2019 Excellence fellowship in data science, Council for Higher Education, Israel.
Up to 3 fellowships of 90K USD for applicants for postdoctoral positions abroad in data science[1].

• PROFESSIONAL ACTIVITIES

Research responsibilities

2023 – 2026 Co-Convenor of the Standard Model QCD group, CMS Collaboration (member of the CMS Standard Model coordination team).

2021 – 2023 Co-Convenor of the Proton Physics Object Group, CMS Collaboration. (member of the CMS Physics coordination team)

Member of scientific panels

2020 – 2024 Member of Early-Career Researchers Panel (Israel representative), European Committee for Future Accelerators (ECFA)

Member in scientific collaborations

2019 – Member of the CMS collaboration at the LHC, CERN

2022 – 2024 Member of the ePIC collaboration at the EIC

2012 – 2019 Member of the ATLAS collaboration at the LHC, CERN

[1] Data science also includes the following topics: Artificial intelligence, robotics, game theory, stochastic processes, signal processing, bioinformatics, personalized medicine, epidemiology, econometrics, psychometrics, cyber, quantum computations.

Organisation of scientific meetings (including future meetings)

2025 The 2025 European Physical Society Conference on High Energy Physics, Marseille, France, Convener of the "QCD and Hadronic Physics" session.

2024 The 14th edition of QCD@LHC conference, Freiburg, Germany, Convener of the "Soft interactions, non-perturbative QCD" session.

2024 12th Edition of the Large Hadron Collider Physics Conference, Boston, USA Convener of the "QCD Physics" session.

2022 Diffraction and Low-X conference 2022, Corigliano Calabro, Italy Convener of the "Photon-photon physics and hard diffraction" session.

• EDUCATIONAL ACTIVITIES

Teaching

2020 – 2023 Lead facilitator – CMS Data Analysis School (2020&2023@CERN, 2022@LPC)

2018 – 2019 Teaching assistant – Practical Deep Learning for Science, Weizmann Institute of Science, Israel

2017 – 2018 Lecturer – Machine learning and Python, Computer Science in Academia and Industry, Davidson Institute of Science education, Israel

Supervision of students

2020 – Supervisor – CERN Summer student program, CERN, Switzerland

2022 – 2024 Graduate Student Co-advisor (with Prof. Zvi Citron), Department of Physics, Ben-Gurion University of the Negev, Israel

2018 – 2019 Graduate Student Co-advisor (with Prof. Ehud Duchovni), Department of Particle Physics and Astrophysics, Weizmann Institute of Science, Israel. Published a paper in peer-reviewed journal.

Outreach

2020 – CERN official guide, Moderator of the Masterclass sessions at CERN

• SELECTED TALKS AT WORKSHOPS AND CONFERENCES (past three years)

2025 "Measuring (g-2) of tau via $\gamma\gamma \to \tau\tau$ at the FCC-ee", 8th FCC Physics workshop, CERN

2024 "Physics of pO collisions at the LHC with proton/neutron tagging", Diffraction and Low-X conference, Trabia (APP Supp. 18 (2025) 1-A11)

2024 "CMS Precision Proton Spectrometer results and prospects", Diffraction and Saturation at the LHC and the EIC, Trento

2024 "Diffractive measurements at CMS and TOTEM", The XXXI International Workshop on Deep Inelastic Scattering and Related Subjects (DIS2024), Grenoble

2024 "Physics Perspectives with the ePIC Far-Forward and Far-Backward detectors", The XXXI International Workshop on Deep Inelastic Scattering and Related Subjects (DIS2024), Grenoble. PoS(DIS2024)259

2023 "Coherent VM production at the EIC and LHC", Workshop on synergies between the EIC and the LHC, DESY

2023 "Constraining hadronic models using pO collisions at the LHC with proton/neutron tagging", The XVIII International Conference on Topics in Astroparticle and Underground Physics, Vienna. PoS(TAUP2023)140

2023 "Far-Forward Detector Working Group Update", EIC User Group Meeting, Warsaw

2023 "Probing the exclusive vector meson production at the EIC", The 2023 EIC Early Career Workshop, Warsaw

2023 "Physics perspectives of a CMS near-beam proton spectrometer at HL-LHC", Large Hadron Collider Physics Conference, Belgrade. PoS(LHCP2023)012

2023 "Physics at the HL LHC with proton tagging", The XXIX Cracow Epiphany Conference, Cracow. APP Supp. 16 (2023) 7-A12

2023 Reducing model uncertainties using proton-oxygen collisions with proton/neutron tagging at the LHC, PoS **ICRC2023** (2023) 426

2022 "Recent results on VBF and VBS measurements", QCD@LHC2022, IJCLab, France

2022 "New constraints on PDFs, strong coupling, and SMEFT results using CMS jet data", Saturation and Diffraction at the LHC and the EIC, ECT*, Italy

2022 "Hard Diffraction and proton tagging at the LHC", Saturation and Diffraction at the LHC and the EIC, ECT*, Italy