

# MATTHEW FORREST

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**EDUCATION** University of Glasgow, Glasgow, UK 2001 - 2010

- 2005-2010 Ph.D. Experimental Particle Physics
- 2001-2005 M.Sci. Physics and Mathematics, 2:1

English International College, Marbella, Spain 1999 - 2001

- A-level Maths, Physics and Chemistry at grade A
- President of School (2000-2001)

**RESEARCH EXPERIENCE** Experimental particle physics research at DESY, Hamburg (2006-2009) which included:

- Analysis of large datasets from the ZEUS detector utilising particle beams from the HERA electron-proton collider.
  - Experience as lead analyser in working group; collaborating with other researchers; liaising with theorists and co-ordinating research activities resulting in peer-reviewed publication including comparisons to theoretical predictions and computer simulated events (Monte Carlo).
  - Experience as an active member of large international collaboration contributing technical improvements and computer code, as well as giving regular status update presentations.
- Tuning the response of the Monte Carlo description of the ZEUS detector to electromagnetic particles.
  - Developed single particle Monte Carlo generator for use at ZEUS.
  - Investigated and optimised multiple parameters using fits to data.
- Detector/hardware tasks.
  - Deputy shifts during data-taking (responsible for Data Quality Monitoring and safety checks).
  - Expert for Central Tracking Detector sub-detector including ‘on-call’ responsibilities (first contact for problems with readout electronics, high voltage and gas systems) and maintenance of readout electronics .
- Responsibility for processing and documenting large, shared Monte Carlo samples (QCD group Monte Carlo Contact Person at ZEUS).

**COMPUTING SKILLS**

- Languages: C++, FORTRAN, L<sup>A</sup>T<sub>E</sub>X, python and shell scripting
- Operating Systems: GNU/Linux and MS Windows
- Applications: ROOT (analysis and visualisation package), MS Office/OpenOffice

**PUBLICATIONS AS LEAD AUTHOR**

- Measurement of isolated photon production in deep inelastic  $ep$  scattering  
*Physics Letters B 687 (2010) 16-25*
- Prompt-photon production in DIS  
*Workshop Proceedings for DIS 2009, 26-30 April 2009, Madrid*

**CONFERENCE TALKS**

- Prompt-photon production in DIS  
*DIS 2009, 29 April 2009, Madrid*
- Prompt photons at HERA  
*HERA/LHC Workshop 13 May, 2007, DESY, Hamburg*

**LANGUAGES** Rudimentary French, Spanish and German.

**HOBBIES** Drums and Percussion, Computing, Football, Skiing, Sailing