Conor Fitzpatrick - CERN Fellowship Motivation

Since 2006 I have been involved with LHCb. First as a summer student at Edinburgh, then at CERN in 2007, working on the MC simulation and experimental verification of scintillation background in the Čerenkov gasses of the LHCb RICH. I chose my MPhys topic to complement the experimental work I had undertaken so far; a selection and sensitivity study of the channel $B_d^0 \to \phi K_S^0$. My PhD has centred upon tests of the Standard Model in the B_s^0 system, leading to the world's most precise measurement of ϕ_s in $B_s^0 \to J/\psi\phi$, a flagship analysis at LHCb now submitted for publication. I consider myself to be a dedicated, active and effective member of the LHCb collaboration both in analysis and in the control room.

I count myself as being incredibly fortunate in coming to CERN at a time when Experimental HEP is undergoing a renaissance: While the Higgs is surely an important discovery to be made, a wealth of other physics discoveries both within and beyond the Standard Model are possible at LHC energies and luminosities: Some are predicted, some are hinted at, and some surprises await, making the next few years an incredibly exciting and challenging time to be a physicist at CERN.

Having worked on an LHC experiment prior to and during data taking has been an incredibly rewarding experience, one that is made more so by sharing this experience with the large, enthusiastic and diverse group of collaborators that is typical of and unique to the CERN working environment.

Ultimately, I am driven by curiosity: I have an insatiable desire to understand the workings of our universe, through learning from and sharing with like-minded, enthusiastic collaborators. A CERN fellowship that puts me in an active analysis rôle would be an ideal opportunity to nurture and exploit this curiosity.

Conor Fitzpatrick, February 21, 2012
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