

Hugo Day

CONTACT INFORMATION	CERN Bt. 9-1-002 CH-1211, Geneve 23, Switzerland	office: +61 7 3735 3754 mobile: +44 7890 945140 e-mail: hugoday@gmail.com
RESEARCH INTERESTS	Beam Dynamics, Wakefields and beam impedance, RF engineering, beam instrumentation, complex systems, numerical methods, nanotechnology, solid state physics	
EDUCATION	University of Manchester , Manchester, United Kingdom <i>Doctor of Philosophy</i> September 2009 – present <ul style="list-style-type: none">• Thesis title: “Measurements and Simulations of Impedance Reduction Techniques in Particle Accelerators” - Work done under placement at CERN (February 2010 – February 2013) through the CERN Doctoral Program• Expected graduation date: February 2013• Supervisors: Professor Roger Jones and Dr Elias Metral (CERN) University of Southampton , Southampton, United Kingdom <i>MPhys (Hons) Physics Classification: 1st Class</i> October 2005 – July 2009 <ul style="list-style-type: none">• Masters’ Thesis: “Controlling the synthesis of branched gold nanoparticles using a wet chemical synthesis method” under the supervision of Dr. Antonios Kanaras• Supervisor: Dr Malcolm Coe	
PROFESSIONAL EXPERIENCE	CERN , Geneve, United Kingdom <i>CERN Tour Guide/Conferencier</i> November 2010 – Present <p>Giving introductory presentations and tours of experimental facilities at CERN to visitors, both public and private of all ages and knowledge.</p> University of Manchester , Manchester, United Kingdom <i>Teaching Assistant</i> September 2010 – January 2011 <p>Teaching assistant for undergraduate courses (Programming in C).</p> CERN , Geneve, United Kingdom <i>CERN Summer Student</i> June 2008 – September 2008 <p>Simulations of the H^- and electrons through the spectrometer in the 3MeV test stand for LINAC4. The magnetic field of the spectrometer was first realised, and then the trajectory of the particles simulated using the tracking code PATH.</p>	
PEER-REVIEWED PUBLICATIONS	Day, H.A., Bartczak, D., Fairbairn, N., McGuire, E., Ardakan, M., Porter, A. E. and Kanaras, A.G., “Controlling the three-dimensional morphology of nanocrystals”, <i>CrystEngComm</i> , 2010, 12, 4312-4316.	
CONFERENCE PUBLICATIONS	Day, H.A., Barnes, M., Caspers, F., Jones, R.M., Metral, E., Salvant, B. “Evaluation of the Beam Coupling Impedance of New Beam Screen Designs for the LHC Injection Kicker Magnets”, WEPPR071, IPAC’12, New Orleans, US, 2012. Day, H.A., Caspers, F., Dallochio, A., Gentini, L., Grudiev, A., Jones, R.M., Metral, E., Salvant, B. “Beam Coupling Impedance of the LHC TCTP Collimators”, WEPPR070, IPAC’12, New Orleans, US, 2012. Day, H.A., Caspers, F., Jones, R.M., Metral, E. “Simulations of Coaxial Wire Measurements of the Impedance of Asymmetric Structures. ”, MOPS079, IPAC’11, San Sebastian, Spain, 2011. Day, H.A., Barnes, M., Caspers, F., Jones, R.M., Metral, E., Salvant, B., C. Zannini “Coaxial Wire Measurements of Ferrite Kicker Magnets”, MOPS078, IPAC’11, San Sebastian, Spain, 2011. Day, H.A., Caspers, F., Jones, R.M., Metral, E., Salvant, B. “Comparison of the current LHC Collimators and the SLAC Phase 2 Collimator Impedances”, MOPS080, IPAC’11, San Sebastian, Spain, 2011.	
INVITED TALKS	Day, H.A., Biancacci, N., Salvant, B. Zannini, C. “Impedance simulations of the LHC collimators and low beta simulations of ferrite kicker magnets with CST Particle Studio”, 6th CST European User Group Meeting, Freising, Germany, 2011.	

LANGUAGES	English (Fluent), French (Intermediate), German (Beginner)	
PROGRAMMING	C, C++, Matlab, Mathematica, Python, Java, L ^A T _E X 2 _ε , R, *nix and Windows administration	
REFEREES	Dr. Elias Metral CERN Geneve 23, Switzerland, CH-1211 phone: <i>available on request</i> e-mail: <i>elias.metral@cern.ch</i>	Dr Roger Jones University of Manchester Oxford Road, Manchester, United Kingdom, M13 9PL phone: <i>available on request</i> e-mail: <i>roger.jones@stfc.ac.uk</i>
	Dr Fritz Caspers CERN Geneve 23, Switzerland, CH-1211 phone: <i>available on request</i> e-mail: <i>fritz.caspers@cern.ch</i>	