

Simon Hands – Curriculum Vitæ

Current Position Professor,
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Education

June 1983: B.A. (Hons.) 1st class in Physics and Theoretical Physics,
University of Cambridge.
September 1986: Ph.D. in Theoretical Physics, Edinburgh University
Research supervisor: Professor D.J. Wallace.

Career to Date

October 2003: Personal Chair in Physics, U.W. Swansea.
October 2002: PPARC Senior Research Fellow, U.W. Swansea.
October 2000: Reader, U.W. Swansea.
October 1997: Senior Lecturer, U.W. Swansea.
October 1993: PPARC Advanced Fellow, Dept. of Physics, U.W. Swansea.
April 1992: CERN Fellow, Theory Division, CERN, Geneva.
October 1991: SERC Advanced Fellow, University of Glasgow.
September 1990: PDRA, Dept. of Physics and Astronomy, University of Glasgow.
August 1988: PDRA, Dept. of Physics, University of Illinois at Urbana-Champaign.
October 1986: PDRA, Dept. of Theoretical Physics, University of Oxford.

Additional Information

I sit on or have sat on:

PPARC's Project Peer Review Panel (formerly PPESP) 1999-2002.

PPARC's Fellowship Panel 2000/01, and STFC's Fellowship Panel 2007/08 and 2008/09.

STFC Particle Physics Grant Panel (Theory) from 2009.

STFC Computing Advisory Panel from 2009.

The particle physics panel of PPARC's Long Term Science Review aimed at improving PPARC's performance in the UK Government's 2000 Comprehensive Spending Review. The report can be viewed at <http://www.pparc.ac.uk/partphys>.

The UK CERN Fellowships Panel 2007-10 (as chair).

The Scientific Board of the European Centre for Theoretical Nuclear Physics and Related Areas (ECT*), Trento, Italy from 2008 (currently chair).

Project Management Board of the *DiRAC* HPC computing facility

Editorial Board of *European Journal of Physics A*

The International Advisory Committee for the annual *Extreme QCD* workshop.

Main Research Grants

- October 1991: SERC Research Grant for £10k
Hardware Requirements for Lattice Field Theory Calculations
- August 1993: EU HCM network, local coordinator I.G. Halliday, value €11.4k
Computational Particle Physics
- January 1994: PPARC Research Grant of 500 cpu hours on Cray Y-MP at DRAL
Lattice Studies of QCD and QED.
- October 1997: local coordinator for EU TMR network, value €132k
Finite Temperature Phase Transitions in Particle Physics
- April 1998: UK Fundamental Physics Consortium (Principal Investigator S. Hawking)
JREI bid brings SGI Origin 2000 computer to Swansea, value £140k.
- September 1998: Co-Investigator on PPARC Rolling Grant for Swansea Theory Group
- October 1999: Leverhulme Trust grant for £71k
Non-abelian Gauge Interactions in Strongly Correlated Electron Systems
- April 2000: Co-Investigator on PPARC HPC grant for £360k
UKQCD's Exploitation of and Familiarisation with APE Technology
- October 2001: Co-Investigator on PPARC Rolling Grant for Swansea Theory Group
- October 2002: PPARC Senior Research Fellowship, value £106k
- October 2003: Co-Investigator on PPARC Rolling Grant for Swansea Theory Group
- August 2004: Visiting PPARC Fellowship, value £13k
(Seyong Kim, Sejong University, S. Korea)
- October 2005: Co-Investigator on PPARC Rolling Grant for Swansea Theory Group
- October 2008: Co-Investigator on STFC Rolling Grant for Swansea Theory Group
- November 2009: Principal Investigator on UKQCD High Performance Computing grant from STFC (value £6.8M)

Best Publications since 2005

- [54] *with* C.R. Allton, M. Döring, S. Ejiri, O. Kaczmarek, F. Karsch, E. Laermann and K. Redlich, *Thermodynamics of Two Flavor QCD to Sixth Order in Quark Chemical Potential*, hep-lat/0501030, Phys. Rev. **D71**:054508 (20 pages) (2005).
- [56] *with* S. Kim, J.I. Skullerud, *Deconfinement in Dense 2-Color QCD*, hep-lat/0604004, Eur. Phys. J. **C48** 193-206 (2006).
- [60] *with* G. Aarts, C.R. Allton, J. Foley and S. Kim, *Spectral Functions at Small Energies and the Electrical Conductivity in Hot, Quenched Lattice QCD*, hep-lat/0703008, Phys. Rev. Lett. **99**:022002 (2007)
- [62] *with* C.G. Strouthos, *Quantum Critical Behaviour in a Graphene-like Model*, arXiv:0806.4877, Phys. Rev. **B78**:165423 (7 pages) (2008), reissued in Virtual Journal of Nanoscale Science and Technology **18**.
- [66] *with* S. Kim, J.I. Skullerud, *A Quarkyonic Phase in Dense Two Color Matter*, arXiv:1001.1682, Phys. Rev. **D81** 091502(R) (2010).

In total I have published 68 papers in refereed journals and a further 60 non-refereed publications/conference proceedings.