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Education and Employment

University of Otago, New Zealand

B.Sc. Honours (Mathematics), 1981

B.Sc. Honours (Physics), 1982

M.Sc. (Physics), 1983

Oxford University

D. Phil. (Physics), 1988

Research Lecturer, Christ Church, 1985-87

Yale University

Associate Research Physicist, 1987-1989

Assistant Professor of Physics, 1989 - 1994

Associate Professor of Physics, 1994-1996

University of Sussex

Reader in Experimental Physics, 1996 –2002

Los Alamos National Laboratory

Technical Staff Member (Applied Modern Physics), 2002-

Leader, Los Alamos Quantum Initiative, 2004-

Publications

Refereed Journals

1. M.G. Boshier and W.J. Sandle, "Self-focussing in a vapour of two-state atoms", *Opt. Comm.* **42**, 371 (1982).
2. K. Tai, H.M. Gibbs, M.C. Rushford, N. Peyghambarian, J.S. Satchell, M.G. Boshier, R.J. Ballagh, W.J. Sandle, M. LeBerre, E. Ressayre, A. Tallet, J. Teichmann, Y. Claude, F.P. Mattar, and P.D. Drummond, "Observation of continuous-wave on-resonance "self-focussing"", *Optics. Lett.* **9**, 243 (1984).
3. C.J. Foot, P.E.G. Baird, M.G. Boshier, D.N. Stacey, and G.K. Woodgate, "Generation of cw 243nm radiation and application to laser spectroscopy of the strontium isotopes", *Opt. Comm.* **50**, 199 (1984).
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5. R. Kloch, P.E.G. Baird, M.G. Boshier, M.J. Macpherson, C.W.P. Palmer, D.N. Stacey, and V. Stacey, "Isotope shifts in $\lambda 326.1$ nm of CdI", *Z. Phys. D* **6**, 315 (1987).
6. D.A. Tate, P.E.G. Baird, M.G. Boshier, E.A. Hinds, D.N. Stacey, and G.K. Woodgate, "Fine structure and isotope shift of tritium in the Balmer- α transition", *J. Phys. B* **21**, 421 (1988).
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8. M.G. Boshier, D. Berkeland, E.A. Hinds, and V. Sandoghdar, "External-cavity frequency-stabilization of visible and infrared semiconductor lasers for high resolution spectroscopy", *Opt. Comm.* **85**, 355 (1991).
9. L.R. Hunter, D. Krause Jr., D.J. Berkeland, and M.G. Boshier, "Precise measurement of the Stark shift of the lithium D1 line", *Phys. Rev. A* **44**, 6140 (1991).
10. L.R. Hunter, D. Krause Jr., K.E. Miller, D.J. Berkeland, and M.G. Boshier, "Precise Measurement of the Stark Shift of the Cesium D1 Line", *Opt. Comm.* **94**, 210 (1992).
11. W. Schwarz, V. Ebert, H. Geerds, K. Jungmann, S. Kirches, S. Koppe, F. Maas, H.-J. Munding, G. zu Putlitz, J. Rosnkranz, W. Schäfer, G. Schiff, Z. Zhang, M.G. Boshier, and V.W. Hughes, "Thermal Muonium in Vacuo from Silica Aerogels", *Jour. Non-Cryst. Solids* **145**, 244 (1992).
12. C.I. Sukenik, M.G. Boshier, D. Cho, V. Sandoghdar, and E.A. Hinds, "Measurement of the Casimir-Polder Force", *Phys. Rev. Lett.* **70**, 560 (1993).
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14. F. Maas, B. Braun, H.J. Geerds, K. Jungmann, B.E. Matthias, G. zu Putlitz, I. Reinhard, W. Schwarz, L. Willmann, L. Zhang, P.E.G. Baird, P.G.H. Sandars, G. Woodman, G.H. Eaton, P. Matousek, W.T. Toner, M. Towrie, J.R.M. Barr, A.I. Ferguson, M. Persaud, E. Riis, D.J. Berkeland, M.G. Boshier, V.W. Hughes, and K.A. Woodle, "*A measurement of the 1S-2S transition frequency in muonium*", Phys. Lett. **A187**, 247 (1994).
15. D.J. Berkeland, E.A. Hinds, and M.G. Boshier, "*Precise Optical Measurement of Lamb Shifts in Atomic Hydrogen*", Phys. Rev. Lett. **75**, 2470, (1995).
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20. I.G. Hughes, P.A. Barton, T.M. Roach, M.G. Boshier, and E.A. Hinds, "*Atom optics with magnetic surfaces .I. Storage of cold atoms in a curved 'floppy disk'*", J. Phys. B **30**, 647 (1997).
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31. A.S. Arnold, C. MacCormick, and M.G. Boshier. "*An adaptive inelastic magnetic mirror for Bose-Einstein condensates*", Phys. Rev. A **65**, 031601(R) (2002).
32. D.J. Berkeland and M.G. Boshier, "*Destabilization of Dark States and Optical Spectroscopy in Zeeman Degenerate Atomic Systems*", Phys. Rev. A **65**, 033413 (2002).
33. A.S. Arnold, C. MacCormick, and M.G. Boshier, "*Diffraction-limited focusing of Bose-Einstein condensates*", J. Phys. B **37**, 485 (2004).
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