

**P V E McCLINTOCK****COMPLETE LIST OF SCIENTIFIC PUBLICATIONS  
as at 31 December 2011**Contents

A. Scientific papers (refereed journals) .....	2
B. Scientific papers (conference proceedings, mostly refereed) .....	12
C. Books .....	19
D. Theses .....	20
E. General scientific articles, book reviews and miscellanea .....	20

Many items are available from/via Lancaster EPrints –  
<http://eprints.lancs.ac.uk/>

All items (except books) are available on request from PVEMcC –  
[p.v.e.mcclintock at lancaster.ac.uk](mailto:p.v.e.mcclintock@lancaster.ac.uk)

## A. SCIENTIFIC PAPERS (REFEREED JOURNALS).

- [1] P V E McClintock, I P Morton, R Orbach and H M Rosenberg, "The effect of a magnetic field on the thermal conductivity of paramagnetic crystals: holmium ethylsulphate"; *Proc. Roy. Soc. (Lond.) A* **298**, 359–78 (1967).
- [2] P V E McClintock and H M Rosenberg, "The effect of a magnetic field on the thermal conductivity of paramagnetic crystals: cerium ethylsulphate"; *Proc. Roy. Soc. (Lond.) A* **302**, 419–436 (1968).
- [3] R A Guyer, P V E McClintock, and K H Mueller, "Second sound in He-3/He-4 solutions"; *Phys. Lett.* **27A**, 611–12 (1968).
- [4] R T Harley, P V E McClintock and H M Rosenberg, "Anomalies in the thermal resistivity of praseodymium ethylsulphate"; *Phys. Lett. A* **28**, 469–70 (1969).
- [5] P V E McClintock, "Field-emission in liquid helium"; *Phys. Lett. A* **29**, 453–4 (1969).
- [6] A Hickson and P V E McClintock, "Evidence for gaseous corona discharge at fine points in liquid helium"; *Phys. Lett. A* **34**, 424–5 (1971).
- [7] P V E McClintock, "Field-emission and field-ionisation in liquid He-3"; *Phys. Lett. A* **35**, 211–2 (1971).
- [8] P J Gavin and P V E McClintock, "Field-emission and field-ionisation in liquid helium under pressure"; *Phys. Lett. A* **43**, 257–8 (1973).
- [9] P V E McClintock, "Field-emission and field-ionisation in liquid He-3 above 0.25K" *J. Low Temperature Phys.* **11**, 15–31 (1973).
- [10] P V E McClintock, "Ionic mobility in liquid He-3 above 0.25K"; *J. Low Temperature Phys.* **11**, 277–88 (1973).
- [11] P V E McClintock, "Temperature dependence of the field-emission current in He II"; *J. Phys. C: Solid State Phys.* **6**, L186–90 (1973).
- [12] H Read-Forrest and P V E McClintock, "Angular variation of the current from field-emission and field-ionisation sources in liquid helium"; *Cryogenics* **13**, 371–3 (1973).
- [13] S D Crowley, P J Davis and P V E McClintock, "A new technique for stimulating ultra-violet luminescence of liquid helium"; *Cryogenics* **13**, 556–8 (1973).
- [14] A Phillips and P V E McClintock, "Evidence for roton creation in a superfluid field-emission diode near 0.5K"; *Phys. Lett. A* **46**, 109–10. (1973).
- [15] P V E McClintock, "Thickness of the helium film on a curved substrate"; *Phys. Lett. A* **46**, 145–6 (1973).
- [16] A Phillips and P V E McClintock, "The vortex ring nucleation rate due to negative ions travelling near the Landau velocity in He II"; *J. Phys. C: Solid State Phys.* **7**, L118–22 (1974).
- [17] A Phillips and P V E McClintock, "Breaking the roton barrier: an experimental study of motion faster than the Landau critical velocity for roton creation in He II"; *Phys. Rev. Lett.* **33**, 1468–71 (1974).
- [18] A G Webster and P V E McClintock, "Size effects in superfluid field emission"; *Cryogenics* **14**, 650–3 (1974).
- [19] A Phillips and P V E McClintock, "Vorticity generated near a field-emitter in superfluid helium"; *Phys. Lett.* **50A**, 417–8 (1975).
- [20] A Phillips and P V E McClintock, "Field-emission and field-ionisation in liquid He-4"; *Phil. Trans. Roy. Soc. (Lond.) A* **278**, 271–310 (1975).
- [21] C N Barber, P V E McClintock, I E Miller and G R Pickett, "Anomalous positive ion mobility in liquid He-3"; *Phys. Lett. A* **54**, 241–2 (1975).
- [22] D R Allum, A Phillips and P V E McClintock, "Anomalous roton-induced drag on negative ions in He II"; *Phys. Lett. A* **54**, 385–6 (1975).
- [23] D R Allum and P V E McClintock, "Field emission in a He-3/He-4 solution"; *Phys. Lett. A* **56**, 199–200 (1976).
- [24] D R Allum and P V E McClintock, "Condensation of isotopic impurities on the negative ion in He II"; *J. Phys. C: Solid State Phys.* **9**, L273–6 (1976).
- [25] D R Allum and P V E McClintock, "Observation of a second critical field for negative ions in He II"; *J. Phys. C: Solid State Phys.* **9**, L371–5 (1976).
- [26] D R Allum, R M Bowley and P V E McClintock, "Evidence for roton pair creation in superfluid He-4"; *Phys. Rev. Lett.* **36**, 1313–16 (1976).
- [27] M Atkins and P V E McClintock, "Isotopic purification of He-4"; *Cryogenics* **16**, pp 733–4 (1976).
- [28] D R Allum, A Phillips, P V E McClintock and R M Bowley "The breakdown of superfluidity in liquid He-4: an experimental test of Landau's theory"; *Phil. Trans. Roy. Soc. (Lond.) A* **284**, 179–224 (1977).
- [29] P W Alexander, C N Barber, P V E McClintock and G R Pickett, "Positive ionic mobility and a hierarchy of ions in normal liquid helium-3"; *Phys. Rev. Lett.* **39**, 1544–7 (1977).
- [30] J F R Primrose and P V E McClintock, "A pulsed spacecharge technique for measuring ionic mobilities in liquid"; *Cryogenics* **17**, 359–61 (1977).

- [31] R J Scott and P V E McClintock, “Preparation of isotopically pure helium-4 suitable for constructing a high density neutron source; *Phys. Lett. A* **64**, 205–7 (1977).
- [32] L J Richardson and P V E McClintock, “A miniature continuously filled helium-4 cryostat”; *Cryogenics* **18**, 109–11 (1978).
- [33] D R Allum and P V E McClintock, “Nucleation of negatively charged vortex rings in superfluid helium-4 near its solidification pressure”; *J. Low Temperature Physics* **31**, 321–38 (1978).
- [34] P V E McClintock, “A liquid level detector for a pumped bath of He II”; *Cryogenics* **18**, 183 (1978).
- [35] P V E McClintock, “An apparatus for preparing isotopically pure He-4”; *Cryogenics* **18**, 201–8 (1978).
- [36] P W Alexander, P V E McClintock, G R Pickett and R M Bowley), “Nonlinear behaviour of positive ions in normal liquid helium-3: a comparison of experiment with a parameterless theoretical prediction”; *J. Phys. C: Solid State Phys.* **11**, L881–5 (1978).
- [37] P C E Stamp, P V E McClintock and W M Fairbairn, “Possible influence of thermal rotons on vortex nucleation by negative ions in pressurized He II below 1K”; *J. Phys. C: Solid State Phys.* **12**, L589–93 (1979).
- [38] M H Bhatti and P V E McClintock, “Optimal positioning of field emitters for ion injection in liquid helium”; *Cryogenics* **19**, 535–6 (1979).
- [39] C I Jewell and P V E McClintock, “A note on the purity of liquid helium-4”; *Cryogenics* **19**, 682–3 (1979).
- [40] P V E McClintock, F E Moss and R M Bowley, “A roton-driven mechanism for nucleation of negatively charged vortex rings in isotopically pure superfluid He-4”; *Phys. Lett. A* **76**, 303–5 (1980).
- [41] T Ellis, C I Jewell and P V E McClintock, “Measurement of the Landau velocity in He II”; *Phys. Lett. A* **78**, 358–60 (1980).
- [42] P V E McClintock, F E Moss and R M Bowley, “Inhibition of vortex nucleation in He II by strong electric fields”; *J. Phys. C: Solid State Phys.* **13**, L503–9 (1980).
- [43] M I Morrell, M Sahraoui-Tahar and P V E McClintock, “On the damping of a vibrating grid in a viscous medium: the possible basis for an electrostatic viscometer”; *J. Phys. E: Sci. Instr.* **13**, 350–4 (1980).
- [44] R M Bowley, P V E McClintock, F E Moss and P C E Stamp “Vortex nucleation in isotopically pure superfluid He-4”; *Phys. Rev. Lett.* **44**, 161–4 (1980).
- [45] T Ellis, P V E McClintock, R M Bowley and D R Allum, “The breakdown of superfluidity in liquid He-4: II. An investigation of excitation emission from negative ions travelling at extreme supercritical velocities”; *Phil. Trans. Roy. Soc. (Lond.) A* **296**, 581–95 (1980).
- [46] G G Nancolas, P V E McClintock, F E Moss and R M Bowley, “Temperature-dependent vortex nucleation in isotopically pure superfluid He-4”; *J. Phys. C: Solid State Phys.* **14**, L681–6 (1981).
- [47] G G Nancolas and P V E McClintock, “Quenching of the ion/vortex ring transition in He II by intense electric fields”; *Phys. Rev. Lett.* **48**, 1190–2 (1982).
- [48] T Ellis and P V E McClintock, “Free particle dynamics of negative ions in the mechanical vacuum of He II”; *Phys. Lett. A* **89**, 414–6 (1982).
- [49] C I Jewell, R Golub and P V E McClintock, “Helium isotopic purification without a superleak”; *Cryogenics* **22**, 373–4 (1982).
- [50] T Ellis and P V E McClintock, “Effective mass of the normal negative charge carrier in bulk He II”; *Phys. Rev. Lett.* **48**, 1834–37 (1982).
- [51] R M Bowley, P V E McClintock, F E Moss, G G Nancolas and P C E Stamp “The breakdown of superfluidity in liquid He-4: III. Nucleation of quantized vortex rings”; *Phil. Trans. Roy. Soc. (Lond.) A* **307**, 201–60 (1982).
- [52] T Ellis, P V E McClintock and R M Bowley, “Pressure dependence of the negative ion effective mass in He II”; *J. Phys. C: Solid State Phys.* **16**, L485–9 (1983).
- [53] J Smythe, F E Moss, P V E McClintock and D Clarkson, “Ito versus Stratonovich revisited”; *Phys. Lett. A* **97**, 95–98 (1983).
- [54] J Smythe, F E Moss and P V E McClintock, “Observation of a noise-induced phase transition with an analog simulator”; *Phys. Rev. Lett.* **51**, 1062–64 (1983).
- [55] R M Bowley G G Nancolas and P V E McClintock, “Vortex nucleation in ultradilute superfluid He-3/He-4 solutions”; *Phys. Rev. Lett.* **52**, 659–62 (1984).
- [56] V L Eden and P V E McClintock, “The effect of strong electric fields on exotic negative ions in He II: possible evidence for the nucleation of charged vortex rings”; *Phys. Lett. A* **102**, 197–200 (1984).
- [57] P V E McClintock, “Ions in superfluid helium”; *Physica B* **127**, 300–05 (1984).
- [58] F E Moss, P V E McClintock and W Horsthemke, “Moss et al respond”; *Phys. Rev. Lett.* **54**, 606 (1985).
- [59] S D Robinson, F E Moss and P V E McClintock, “Experimental observation of stochastic postponements of critical onsets in a bistable system”; *J. Phys. A: Math. and Gen.* **18**, L89–94 (1985).
- [60] P V E McClintock and F E Moss, “Further experimental evidence pertaining to the applicability of the Ito and Stratonovich stochastic calculi to real physical systems”; *Phys. Lett. A* **107**, 367–70 (1985).

- [61] G G Nancolas, R M Bowley and P V E McClintock, “The breakdown of superfluidity in liquid He-4: IV. Influence of He-3 isotopic impurities on the nucleation of quantized vortex rings”; *Phil. Trans. Roy. Soc. (Lond.) A* **313**, 537–610 (1985).
- [62] P Hanggi, T J Mroczowski, F E Moss and McClintock, “Bistability driven by coloured noise: theory and experiment”; *Phys. Rev. A* **32**, 695–98 (1985).
- [63] T Ellis and P V E McClintock, “The breakdown of superfluidity in liquid He-4: V. Measurement of the Landau critical velocity for roton creation”; *Phil. Trans. Roy. Soc. (Lond.) A* **315**, 259–300 (1985).
- [64] G G Nancolas, T Ellis, P V E McClintock and R M Bowley, “A new form of energy dissipation by a moving object in He II”; *Nature* **316**, 797–99 (1985).
- [65] P C Hendry and P V E McClintock, “Helium-4 isotopic purification in continuous flow”; *Cryogenics* **25**, 526–27 (1985).
- [66] F E Moss and P V E McClintock, “Measurements of two-dimensional densities for a bistable device driven by coloured noise”; *Z. Phys. B: Condensed Matter* **61**, 381–86 (1985).
- [67] F Moss, D K Kondepudi and P V E McClintock, “Branch selectivity at the bifurcation of a bistable system with external noise”; *Phys. Lett. A* **112**, 293–96 (1985).
- [68] J M Sancho, R Mannella P V E McClintock and F Moss, “Relaxation times in a bistable system with parametric, white noise: theory and experiment”; *Phys. Rev. A* **32**, 3639–46 (1985).
- [69] D K Kondepudi, F Moss and P V E McClintock, “Branch selection in the presence of coloured noise”; *Phys. Lett. A* **114**, 68–74 (1986).
- [70] L Fronzoni, P Grigolini, P Hanggi, F Moss, R Mannella and P V E McClintock, “Bistable oscillator dynamics driven by non-white noise”; *Phys. Rev. A* **33**, 3320–27 (1986).
- [71] F Moss, P Hanggi, R Mannella and P V E McClintock, “Stochastic phase portraits of a damped bistable oscillator driven by coloured noise”; *Phys. Rev. A* **33**, 4459–61 (1986).
- [72] D K Kondepudi, F Moss and P V E McClintock, “Observation of symmetry-breaking, state selection and sensitivity in a noisy electronic system”; *Physica D* **21**, 296–306 (1986).
- [73] G G Nancolas, R M Bowley and P V E McClintock, “Vortex nucleation in He II: an interesting distinction between the intrinsic and thermally activated nucleation mechanisms”; *J. Phys. C: Solid State Phys.* **19**, L37–L41 (1986).
- [74] R Mannella, S Faetti, P Grigolini, P V E McClintock and F Moss, “The effect of multiplicative noise on the relaxation time of a real non-linear physical system: a comparison of experiment and theory for the random growing rate model (RGRM)”; *J. Phys. A: Math. Gen.* **19**, L699–704 (1986).
- [75] R Mannella, P V E McClintock and F Moss, “Postponed bifurcations of a swept parameter ring-laser model with additive white noise”; *Phys. Lett. A* **120**, 11–14 (1987).
- [76] R Mannella, F Moss and P V E McClintock, “Postponed bifurcations of a ring-laser model with a swept parameter and additive coloured noise”; *Phys. Rev. A* **35**, 2560–66 (1987).
- [77] K Vogel, H Risken, W Schleich, M James, F Moss and P V E McClintock, “Skewed probability densities in the ring-laser gyroscope: a coloured noise effect”; *Phys. Rev. A* **35**, 463–65 (1987).
- [78] P C Hendry and P V E McClintock, “Continuous flow apparatus for preparing isotopically pure He-4”; *Cryogenics* **27**, 131–38 (1987).
- [79] R C M Dow, C J Lambert, R Mannella and P V E McClintock, “Modulation-induced negative differential resistance in bistable systems”; *Phys. Rev. Lett.* **59**, 6–9 (1987).
- [80] J Casademunt, R Mannella, P V E McClintock, F Moss and J M Sancho, “Relaxation times of non-Markovian processes”; *Phys. Rev. A.* **35**, 5183–5190 (1987).
- [81] L Fronzoni, R Mannella, P V E McClintock and F Moss, “Postponement of Hopf bifurcations by multiplicative coloured noise”; *Phys. Rev. A* **36**, 834–841 (1987).
- [82] R Mannella, P V E McClintock and F Moss, “Spectral distribution of a double-well Duffing oscillator subject to a random force”; *Europhys. Lett.* **4**, 511–15 (1987).
- [83] K Vogel, H Risken, W Schleich, M James, F Moss, R Mannella and P V E McClintock, “Coloured noise in the ring-laser gyroscope: Theory and simulation”; *J. Appl. Phys.* **62**, 721–23 (1987).
- [84] L Fronzoni, F Moss and McClintock, “Swept-parameter-induced postponements and noise on the Hopf bifurcation”; *Phys. Rev. A* **36**, 1492–94 (1987).
- [85] M I Dykman, R Mannella, P V E McClintock, F Moss and S M Soskin, “Spectral density of fluctuations of a double-well Duffing oscillator driven by white noise”; *Phys. Rev. A* **37**, 1303–13 (1988).
- [86] R Mannella, S Faetti, P Grigolini and P V E McClintock, “On the relaxation of fluctuations in the steady state of the Stratonovich model”; *J. Phys. A: Math. Gen.* **21**, 1239–52 (1988).
- [87] P C Hendry, N S Lawson, P V E McClintock and C D H Williams, “Macroscopic quantum tunnelling of vortices in He II”; *Phys. Rev. Lett.* **60**, 604–607 (1988).
- [88] P V E McClintock, C D H Williams and P C Hendry, “Comment on nature of exotic negative carriers in superfluid He-4”; *Phys. Rev. Lett.* **60**, 865 (1988).

- [89] P Grigolini, L A Lugiato, R Mannella, P V E McClintock, M Merri and M Pernigo, “Fokker-Planck description of stochastic processes with coloured noise”; *Phys. Rev. A* **38**, 1966-1978 (1988).
- [90] N G Stocks, R Mannella and P V E McClintock, “Effect of external fluctuations on the Freedericksz transition in an analogue simulator”; *J. Stat. Phys.* **54**, 1383-1396 (1989).
- [91] N G Stocks, C J Lambert and P V E McClintock, “Analogue simulation of quantum mechanical systems”; *J. Stat. Phys.* **54**, 1397-1410 (1989).
- [92] P J Jackson, C J Lambert, R Mannella, P Martano P V E McClintock and N G Stocks, “Relaxation near a noise-induced transition point”; *Phys. Rev. A* **40**, 2875-2878 (1989).
- [93] N G Stocks, R Mannella and P V E McClintock, “Influence of random fluctuations on delayed bifurcations: The case of additive white noise”; *Phys. Rev. A* **40**, 5361-5369 (1989).
- [94] J Casademunt, J I Jimenez-Aquino, J M Sancho, C J Lambert, R Mannella, P Martano, P V E McClintock and N G Stocks, “Decay of unstable states in the presence of coloured noise and random initial conditions. II. Analogue experiments and digital simulations”; *Phys. Rev. A* **40**, 5915-5921 (1989).
- [95] R Mannella, C J Lambert, N G Stocks and P V E McClintock, “Relaxation of nonlinear systems driven by coloured noise: An exact result”; *Phys. Rev. A* **41**, 3016-3020 (1990).
- [96] M I Dykman, P V E McClintock, R Mannella and N G Stocks, “Stochastic resonance for linear and nonlinear bistable systems in a periodic field” (in Russian); *JETP Lett.* **52**, 780-782 (1990).
- [97] R Mannella and P V E McClintock, “Noise in nonlinear dynamical systems”, *Contemporary Phys.* **31**, 179–194 (1990).
- [98] P C Hendry, N S Lawson, P V E McClintock, C D H Williams and R M Bowley “The breakdown of superfluidity in liquid helium-4. VI. Macroscopic quantum tunnelling by vortices in isotopically pure He II”; *Phil. Trans. Roy. Soc. (Lond.) A* **332**, 387-414 (1990).
- [99] M I Dykman, R Mannella, P V E McClintock and N G Stocks, “Fluctuation-induced transitions between periodic attractors: Observation of supernarrow spectral peaks near a kinetic phase transition”; *Phys. Rev. Lett.* **65**, 48-51 (1990).
- [100] M I Dykman, R Mannella, P V E McClintock and N G Stocks, “Comment on stochastic resonance in bistable systems”; *Phys. Rev. Lett.* **65**, 2606 (1990).
- [101] M I Dykman, R Mannella, P V E McClintock, S M Soskin and N G Stocks, “Noise-induced spectral narrowing in nonlinear oscillators”; *Europhys. Lett.* **13**, 691-696 (1990).
- [102] N G Stocks, R Mannella and P V E McClintock, “Influence of random fluctuations on delayed bifurcations. II The cases of white and coloured additive and multiplicative noise”; *Phys. Rev. A* **42**, 3356-3362 (1990).
- [103] M I Dykman, R Mannella, P V E McClintock, S M Soskin and N G Stocks, “Noise-induced narrowing of peaks in the power spectra of underdamped nonlinear oscillators”; *Phys. Rev. A* **42**, 7041-7049 (1990).
- [104] M I Dykman, R Mannella, P V E McClintock, S M Soskin and N G Stocks, “Zero-frequency spectral peaks of underdamped nonlinear oscillators with asymmetric potentials”; *Phys. Rev. A* **43**, 1701-1708 (1991).
- [105] M I Dykman, P V E McClintock, N D Stein and N G Stocks, “Quasimonochromatic noise: new features of fluctuations in noise-driven nonlinear systems”; *Phys. Rev. Lett.* **67**, 933-936 (1991).
- [106] A Igarashi, P V E McClintock and N G Stocks, “Velocity spectrum for non-Markovian Brownian motion in a periodic potential”, *J. Stat. Phys.* **66**, 1059-1070 (1992).
- [107] M I Dykman, P V E McClintock, V N Smelyanski, N D Stein and N G Stocks, “Optimal paths and the prehistory problem for large fluctuations in noise-driven systems”; *Phys. Rev. Lett.* **68**, 2718-2721 (1992).
- [108] M I Dykman, R Mannella, P V E McClintock and N G Stocks, “Phase shifts in stochastic resonance”; *Phys. Rev. Lett.* **68**, 2985-2988 (1992).
- [109] M I Dykman, D G Luchinsky, P V E McClintock, N D Stein and N G Stocks, “Fluctuation phenomena in a multibranch potential”; *Phys. Rev. A* **45**, R7678-7681 (1992).
- [110] I I Fedchenia, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Influence of noise on periodic attractors in the Lorenz Model: zero frequency spectral peaks and chaos”, *Phys. Rev. A* **46**, 1769-1774 (1992).
- [111] M I Dykman, D G Luchinsky, P V E McClintock, N D Stein and N G Stocks, “Stochastic resonance for periodically modulated noise intensity”; *Phys. Rev. A* **46**, R1713-1716 (1992).
- [112] N G Stocks, N D Stein, S M Soskin and P V E McClintock, “Zero-dispersion stochastic resonance”; *J. Phys. A: Math. Gen.* **25**, L1119-1125 (1992).
- [113] M I Dykman and P V E McClintock, “Power spectra of noise-driven nonlinear systems and stochastic resonance”; *Physica D*, **58**, 10-30 (1992).
- [114] N G Stocks, N D Stein and P V E McClintock, “Stochastic resonance in monostable systems”; *J. Phys. A: Math. Gen.* **26**, L385-390 (1993).
- [115] N G Stocks, P V E McClintock and S M Soskin, “Observation of zero-dispersion peaks in the fluctuation spectrum of an underdamped single-well oscillator”; *Europhys. Lett.* **21**, 395-400 (1993).

- [116] M I Dykman, R Mannella, P V E McClintock and N G Stocks, “Phase shifts in periodically modulated bistable potentials: Dykman et al reply”; *Phys. Rev. Lett.* **70**, 874 (1993).
- [117] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Stochastic resonance: linear response and giant nonlinearity”; *J. Stat. Phys.* **70**, 463-478 (1993).
- [118] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Nonconventional stochastic resonance”; *J. Stat. Phys.* **70**, 479-499 (1993).
- [119] M I Dykman, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Giant nonlinearity in the low-frequency response of a fluctuating bistable system”; *Phys. Rev. E* **47**, 1629-1632 (1993).
- [120] N G Stocks, C J Lambert, R Mannella and P V E McClintock, “Analog stochastic quantization for a one-dimensional alloy”; *Phys. Rev. B* **47**, 8580-8587 (1993).
- [121] M I Dykman, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Probability distributions and escape rates for systems driven by quasimonochromatic noise”; *Phys. Rev. E* **47**, 3996-4009 (1993).
- [122] P V E McClintock, S M Soskin, N D Stein and N G Stocks, “Universality of zero-dispersion peaks in the fluctuation spectra of underdamped nonlinear oscillators”; *Phys. Rev. E* **48**, 147-156 (1993).
- [123] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks, “High frequency stochastic resonance in periodically driven systems”; *Sov. Phys. JETP Lett.* **58**, 150-156 (1993).
- [124] L N Gwaki, C J Lambert, R Mannella and P V E McClintock, “Effect of noise and inertia on modulation induced negative differential resistance”; *Phys. Rev. B* **47**, 14200-14205 (1993).
- [125] M I Dykman, H Haken, Gang Hu, D G Luchinsky, R Mannella, P V E McClintock, C Z Ning, N D Stein and N G Stocks, “Linear response theory in stochastic resonance”; *Phys. Lett. A* **180**, 332-336 (1993).
- [126] P C Hendry, N S Lawson, R A M Lee, P V E McClintock and C D H Williams, “Generation of defects in superfluid  $^4\text{He}$  as an analogue of the formation of cosmic strings”; *Nature* **368**, 315-317 (1994).
- [127] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Supernarrow spectral peaks and high-frequency stochastic resonance in systems with coexisting periodic attractors”; *Phys. Rev. E* **49**, 1198-1215 (1994).
- [128] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Simulation of critical phenomena in nonlinear optical systems”; in *Modern Nonlinear Optics, Part 3*, ed M W Evans and S Kielich, Advances in Chemical Physics Series vol LXXXV, Wiley, New York, 1994, pp 265-378.
- [129] M I Dykman, G P Golubev, D G Luchinsky, P V E McClintock, N D Stein and N G Stocks, “Noise-enhanced heterodyning in bistable systems”; *Phys. Rev. E* **49**, 1935-1942 (1994).
- [130] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, H E Short, N D Stein and N G Stocks, “Noise-induced linearisation”; *Phys. Lett. A* **193**, 61-66 (1994).
- [131] J Iwaniszewski, P V E McClintock and N D Stein, “Transient multimodality in relaxation from an unstable state”; *Phys. Rev. E* **50**, 3538 (1994).
- [132] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Stochastic resonance and its provenance”; *Applied Nonlinear Dynamics* **3**(3), 56-69 (1995).
- [133] M I Dykman, R Mannella, P V E McClintock, N D Stein, D G Luchinsky and H E Short, “Quasimonochromatic noise in bistable systems: the nature of large occasional fluctuations”; *Nuovo Cimento D* **17**, 755-764 (1995).
- [134] M I Dykman, G P Golubev, I K Kaufman, D G Luchinsky, P V E McClintock and E A Zhukov, “Noise-enhanced optical heterodyning in an all-optical bistable system”; *Appl. Phys. Lett.* **67**, 308-310 (1995).
- [135] P V E McClintock and R M Bowley, “The Landau critical velocity”; in *Progress in Low Temperature Physics*, ed. W P Halperin, vol. XIV, Elsevier, Amsterdam, 1995, pp 1-68.
- [136] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks, “Stochastic resonance in perspective”; *Nuovo Cimento D* **17**, 661-683 (1995).
- [137] D G Luchinsky, P V E McClintock, S M Soskin, N D Stein and A B Neiman, “Comment on nonlinear resonance in the relativistic phase space for driven nonlinear systems”; *Phys. Rev. E* **53**, 4240-4241 (1996).
- [138] D G Luchinsky, P V E McClintock, S M Soskin and R Mannella, “Zero-dispersion nonlinear resonance in dissipative systems”; *Phys. Rev. Lett.* **76**, 4453-4457 (1996).
- [139] I Kh Kaufman, D G Luchinsky, P V E McClintock, S M Soskin and N D Stein, “High frequency stochastic resonance in SQUIDs”; *Phys. Lett. A* **220**, 219-223 (1996).
- [140] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, S M Soskin and N D Stein, “Resonant subharmonic absorption and second-harmonic generation by a fluctuating nonlinear oscillator”; *Phys. Rev. E* **54**, 2366-2377 (1996).
- [141] M I Dykman, D G Luchinsky, P V E McClintock and V N Smelyanskiy, “Corrals and critical behaviour of the distribution of fluctuational paths”, *Phys. Rev. Lett.* **77**, 5229-5232 (1996).
- [142] D G Luchinsky and P V E McClintock, “Irreversibility of classical fluctuations studied in electrical circuits”; *Nature* **389**, 463-466 (1997).

- [143] D G Luchinsky, R S Maier, R Mannella, P V E McClintock and D L Stein, “Experiments on critical phenomena in a noisy exit problem”; *Phys. Rev. Lett.* **79**, 3109–3112 (1997).
- [144] M I Dykman and P V E McClintock, “What can stochastic resonance do?”; *Nature* **391**, 344 (1998).
- [145] I Kh Kaufman, D G Luchinsky, P V E McClintock, S M Soskin and N D Stein, “Zero-dispersion stochastic resonance in a model for a superconducting quantum interference device”; *Phys. Rev. E* **57**, 78–87 (1998).
- [146] M. Arrayás, J. M. Casado, J. Gómez Ordóñez, P. V. E. McClintock, M. Morillo, N. D. Stein, “Dispersion of the prehistory distribution: Analog experiments and numerical results”; *Phys. Rev. Lett.* **80**, 2273–2276 (1998).
- [147] M E Dodd, P C Hendry, N S Lawson, P V E McClintock and C D H Williams, “Nonappearance of vortices in fast mechanical expansions of liquid He-4 through the lambda transition”; *Phys. Rev. Lett.* **81**, 3703–3706 (1998).
- [148] D G Luchinsky, P V E McClintock and M I Dykman, “Analogue studies of nonlinear systems”; *Rep. Prog. Phys.* **61**, 889–997 (1998).
- [149] R Mannella, P V E McClintock and S M Soskin “Bifurcation analysis of zero-dispersion stochastic resonance”; *Int. J. of Bifurcation and Chaos* **8** 701–712 (1998).
- [150] M I Dykman, V N Smelyanskiy, D G Luchinsky, R Mannella, P V E McClintock and N D Stein, “Large fluctuations in a periodically driven dynamical system; *Int. J. of Bifurcation and Chaos* **8**, 747–754 (1998).
- [151] G P Golubev, I Kh Kaufman, D G Luchinsky, P V E McClintock, S M Soskin and N D Stein, “Zero dispersion stochastic resonance in underdamped SQUIDS”, *Int. J. of Bifurcation and Chaos* **8**, 843–848 (1998).
- [152] M I Dykman and P V E McClintock, “Stochastic resonance”, *Science Progress* **82**, 113–134 (1999).
- [153] D G Luchinsky, R Mannella, P V E McClintock and N G Stocks, “Stochastic resonance in electrical circuits – I: Conventional stochastic resonance”, *IEEE Trans. on Circuits and Systems II: Analog and Digital Signal Processing* **46**, 1205–1214 (1999).
- [154] D G Luchinsky, R Mannella, P V E McClintock and N G Stocks, “Stochastic resonance in electrical circuits – II: Nonconventional stochastic resonance”, *IEEE Trans. on Circuits and Systems II: Analog and Digital Signal Processing* **46**, 1215–1224 (1999).
- [155] P V E McClintock, “Vortex nucleation in superfluid He-4”, *J. Phys.-Cond. Matter* **11**, 7695–7709 (1999).
- [156] M E Dodd, P C Hendry, N S Lawson, P V E McClintock and C D H Williams, “Expansion of liquid <sup>4</sup>He through the lambda transition”, *J. Low Temperature Phys.* **115**, 89–105 (1999).
- [157] D G Luchinsky, R Mannella, P V E McClintock, M I Dykman and V N Smelyanskiy, “Thermally activated escape of driven systems: the activation energy”; *J. Phys. A: Math. Gen.* **32**, L321–327 (1999).
- [158] M I Dykman, V N Smelyanskiy, D G Luchinsky, R Mannella, P V E McClintock, and N D Stein, “Large fluctuations and irreversibility in nonequilibrium systems”, *Nonlinear Phenomena in Complex Systems* **2**, No. 1, 1–7 (1999).
- [159] D G Luchinsky, R S Maier, R Mannella, P V E McClintock and D L Stein, “Observation of saddle-point avoidance in noise-induced escape”; *Phys. Rev. Lett.* **82**, 1806–1809 (1999).
- [160] P C Hendry and P V E McClintock, “Cosmological experiments in liquid helium”, *Nonlinear Phenomena in Complex Systems* **2**, No. 4, 26–35 (1999).
- [161] P S Landa and P V E McClintock, “Changes in the dynamical behaviour of nonlinear systems induced by noise”, *Phys. Rep.* **323**, 1–80 (2000).
- [162] I A Khovanov, N A Khovanova, V S Anishchenko and P V E McClintock, “The sensitivity to initial conditions and the Lyapunov exponent in a quasiperiodic system” (in Russian), *Soviet Phys.: Tech. Phys.* **70**, No. 5, 112–114 (2000); English version in *Tech. Phys. (AIP)* **45**, No. 5, 633–635 (2000).
- [163] M Arrayás, R Mannella, P V E McClintock, A J McKane and N D Stein, “A ratchet driven by quasi-monochromatic noise”, *Phys. Rev. E* **61** 139–146 (2000).
- [164] J Iwaniszewski, I Kh Kaufman, P V E McClintock and A J McKane, “Resonances while surmounting a fluctuating barrier”, *Phys. Rev. E* **61**, 1170–1175 (2000).
- [165] M Arrayás, I Kh Kaufman, D G Luchinsky, P V E McClintock, and S M Soskin, “The Kramers problem for a multi-well potential”, *Phys. Rev. Lett.* **84**, 2556–2559 (2000).
- [166] I A Khovanov, N A Khovanova, P V E McClintock and V S Anishchenko, “The effect of noise on strange non-chaotic attractors”, *Phys. Lett. A* **268**, 315–322 (2000).
- [167] P C Hendry, N S Lawson and P V E McClintock, “Does the Kibble mechanism operate in liquid <sup>4</sup>He?”, *J. Low Temperature Phys* **119**, 249–256 (2000).
- [168] M Arrayás, M I Dykman, R Mannella, P V E McClintock, and N D Stein, “Symmetry-breaking of fluctuation dynamics by noise color”, *Phys. Rev. Lett.* **84**, 5470–5473 (2000).
- [169] I.A. Khovanov, D.G. Luchinsky, R. Mannella and P.V.E. McClintock, “Fluctuations and the energy-optimal control of chaos”, *Phys. Rev. Lett.* **85**, 2100–2103 (2000).

- [170] D G Luchinsky, M J Greenall and P V E McClintock, “Resonant rectification of fluctuations in a Brownian ratchet”, *Phys. Lett. A* **273**, 316–321 (2000).
- [171] Igor A Khovanov, Dmitri G Luchinsky, Riccardo Mannella, and Peter V E McClintock, “Fluctuational escape from a chaotic attractor”, in *Stochastic Processes in Physics, Chemistry and Biology*, Lecture Notes in Physics, LNP 557, ed. J A Freund and T Pöeschl, Springer-Verlag, Berlin, 2000, pp 378–389.
- [172] P S Landa and P V E McClintock, “Vibrational resonance”, *J. Phys. A: Math. Gen.* **33**, L433–438 (2000).
- [173] A. Stefanovska, H. Haken, P.V.E. McClintock, M. Hožič, F. Bajrović, and S. Ribarič, “Reversible transitions between synchronization states of the cardio-respiratory system”, *Phys. Rev. Lett.* **85**, 4831–4834 (2000).
- [174] N B Janson, A G Balanov, V S Anishchenko and P V E McClintock, “Phase synchronization between several interacting processes from univariate data”, *Phys. Rev. Lett.* **86**, 1749–1752 (2001).
- [175] V S Anishchenko, I A Khovanov, N A Khovanova, D G Luchinsky and P V E McClintock, “Noise-induced escape from the Lorenz attractor”, *Fluctuation and Noise Lett.* **1**, L27–L33 (2001).
- [176] N B Janson, A G Balanov, V S Anishchenko and P V E McClintock, “Modelling the dynamics of angles of human R–R intervals”, *Physiological Measurement* **22**, 565–579 (2001).
- [177] M I Dykman, B Golding, L I McCann, V N Smelyanskiy, D G Luchinsky, R Mannella and P V E McClintock, “Activated escape of periodically driven systems”, *Chaos* **11**, 587–594 (2001).
- [178] S I Davis, P C Hendry, P V E McClintock and H Nichol, “Experiments on quantized turbulence at mK temperatures”, in *Quantized Vortex Dynamics and Superfluid Turbulence*, ed. C F Barenghi, W F Vinen and R J Donnelly, Springer, Berlin, 2001, pp 73–79.
- [179] A Stefanovska, D G Luchinsky and P V E McClintock, “Modelling couplings among the oscillators of the cardiovascular system”, *Physiological Measurement* **22**, 551–564 (2001).
- [180] S M Soskin, V I Sheka, T L Linnik, M Arrayás, I Kh Kaufman, D G Luchinsky, P V E McClintock, and R Mannella, “Noise-induced escape on time-scales preceding quasi-stationarity: new developments in the Kramers problem”, *Chaos* **11** 595–604 (2001).
- [181] I A Khovanov, D G Luchinsky, R Mannella and P V E McClintock, “Fluctuational escape and related phenomena in nonlinear optical systems”, in *Modern Nonlinear Optics*, Part 3 (*Adv. Chem. Phys.* **119**), ed. M.W. Evans, Wiley, New York, 2001, pp 469–524.
- [182] N B Janson, A G Balanov, V S Anishchenko and P V E McClintock, “Phase coherence diagnostics by one-dimensional time series”, *Tech. Phys. Lett.* **27**(12), 987–990 (2001).
- [183] N B Janson, A G Balanov, V S Anishchenko and P V E McClintock, “Phase relationships between two or more interacting processes from one-dimensional time series: I Basic theory”, *Phys. Rev. E* **65**, 036211/1–12 (2002).
- [184] N B Janson, A G Balanov, V S Anishchenko and P V E McClintock, “Phase relationships between two or more interacting processes from one-dimensional time series: II Application to heart-rate-variability data”, *Phys. Rev. E* **65**, 036212/1–7 (2002).
- [185] A G Balanov, N B Janson, D E Postnov and P V E McClintock, “Coherence resonance versus synchronization in a periodically forced self-sustained system”, *Phys. Rev. E* **65**, 041105/1–4 (2002).
- [186] D G Luchinsky, S Beri, R Mannella, P V E McClintock, and I A Khovanov, “Optimal fluctuations and the control of chaos”, *Int. J. of Bifurcation and Chaos* **12**, 583–604 (2002).
- [187] S M Soskin and P V E McClintock, “Comment on ‘Monostable array-enhanced stochastic resonance’”, *Phys. Rev. E* **66**, 013101/1–3 (2002).
- [188] V S Anishchenko, D G Luchinsky and P V E McClintock, I A Khovanov, and N A Khovanova, “Fluctuational escape from a quasi-hyperbolic attractor in the Lorenz system”, *J. Exp. Theor. Phys.* **94**, 821–833 (2002).
- [189] A Bandrivskyy, D G Luchinsky and P V E McClintock, “Simple approximation of the singular probability distribution in a non-adiabatically driven system”, *Phys. Rev. E* **66**, 021108/1–4 (2002).
- [190] P V E McClintock and A Stefanovska, “Noise and determinism in cardiovascular dynamics”, *Physica A* **314**, 69–76 (2002).
- [191] S Rzecziński, N B Janson, A G Balanov, and P V E McClintock, “Regions of cardiorespiratory synchronization in humans under paced respiration”, *Phys. Rev. E* **66**, 051909 (2002).
- [192] V V Sherstnev, A Krier, A G Balanov, N B Janson, A N Silchenko and P V E McClintock, “Mid-infrared lasing induced by noise”, *Fluctuation and Noise Lett.* **3** (1), L91–95 (2003).
- [193] S M Soskin, R Mannella and P V E McClintock, “Zero-Dispersion Phenomena in Oscillatory Systems”, *Phys. Reports* **373**, 247–408 (2003).
- [194] A Balanov, N Janson, P V E McClintock, R W Tucker and C Wang, “Bifurcation analysis of a neutral delay differential equation modelling the torsional motion of a driven drill string”, *Solitons, Fractals and Chaos* **15**, 381–394 (2003).
- [195] I A Khovanov and P V E McClintock, “Comment on ‘Signal-to-noise ratio gain in neuronal systems’ ”, *Phys. Rev. E* **67**, 043901 (2003).

- [196] A Bandrivskyy, S Beri, D G Luchinsky, R Mannella and P V E McClintock, “Fast Monte-Carlo simulations and singularities in the probability distributions of nonequilibrium systems”, *Phys. Rev. Lett.* **90**, 021201 (2003).
- [197] A Balanov, N B Janson and P V E McClintock, “Coherence resonance of the noise-induced motion on the way to breakdown of synchronization in chaotic systems”, *Fluctuation and Noise Lett.* **3** (2), L113–120 (2003).
- [198] P V E McClintock and A Stefanovska, “Interactions and synchronization in the cardiovascular system”, *Fluctuation and Noise Lett.* **3** (2), L167–176 (2003).
- [199] A N Silchenko, D G Luchinsky and P V E McClintock, “Noise-induced escape through a fractal basin boundary”, *Physica A* **327**, 371–377 (2003).
- [200] A N Silchenko, S Beri, D G Luchinsky and P V E McClintock, “Fluctuational transitions through a fractal basin boundary”, *Phys. Rev. Lett.* **91**, 174104 (2003).
- [201] I A Khovanov, N A Khovanova and P V E McClintock, “Noise-induced failures of chaos stabilization: large fluctuations and their control”, *Phys. Rev. E* **67**, 051102/1–11 (2003).
- [202] J Jamšek, A Stefanovska, P V E McClintock and I A Khovanov, “Time-phase bispectral analysis”, *Phys. Rev. E* **68**, 016201/1–12 (2003).
- [203] A N Silchenko, S Beri, D G Luchinsky and P V E McClintock, “Fluctuational transitions across locally-disconnected and locally-connected fractal basin boundaries”, *Applied Nonlinear Dynamics* **11** (3) 38–44, (2003).
- [204] I A Khovanov, N A Khovanova and P V E McClintock, “Optimal control of fluctuations applied to the suppression of noise-induced failures of chaos stabilization”, *Applied Nonlinear Dynamics* **11** (3) 46–55, (2003).
- [205] N B Janson, N B Igosheva, A G Balanov, O Glushkovskaya-Semyachkina, T G Anishchenko, P V E McClintock, “Indices of cardiorespiratory synchronization from rat blood pressure data”, *Applied Nonlinear Dynamics* **11** (3), 120–130 (2003).
- [206] M Veber, A Bandrivskyy, P B M Clarkson, P V E McClintock and A Stefanovska, “Wavelet analysis of blood flow dynamics: effect on the individual oscillatory components of iontophoresis with pharmacologically neutral electrolytes”, *Phys. in Medicine and Biology* **49**, N111–117 (2004).
- [207] S Beri, R Mannella and P V E McClintock, “Dynamic importance sampling for the escape problem in nonequilibrium systems: observation of shifts in optimal paths”, *Phys. Rev. Lett.* **92**, 020601 (2004).
- [208] P S Landa and P V E McClintock, “Development of turbulence in subsonic submerged jets”, *Phys. Reports* **397**, 1–62 (2004).
- [209] A Bandrivskyy, A Bernjak, P V E McClintock, and A Stefanovska, “Wavelet phase coherence analysis: application to skin temperature and blood flow”, *Cardiovascular Engineering* **4**(1), 89–93 (2004).
- [210] H A Nichol, L Skrbek, P C Hendry and P V E McClintock, “Flow of He II due to an oscillating grid in the low temperature limit”, *Phys. Rev. Lett.* **92**, 244501/1–4 (2004).
- [211] E D Leonel, P V E McClintock and J K L da Silva, “The Fermi-Ulam accelerator model under scaling analysis”, *Phys. Rev. Lett.* **93**, 014101/1–4 and 029901 (2004).
- [212] A Bandrivskyy, A Bernjak, P V E McClintock, and A Stefanovska, “Role of transdermal potential difference during iontophoretic drug delivery”, *IEEE Trans. on Biomed. Eng.* **51** (9), 1683–1685 (2004).
- [213] J Jamšek, A Stefanovska and P V E McClintock, “Nonlinear cardio-respiratory interactions resolved by time-phase bispectral analysis”, *Phys. in Medicine and Biology* **49**, 4407–4425 (2004).
- [214] E D Leonel and P V E McClintock, “Dynamical properties of a particle in a time-dependent double-well potential”, *J. Phys. A: Math. Gen.* **37**, 8949–8968 (2004).
- [215] E D Leonel and P V E McClintock, “Chaotic properties of a time-modulated barrier”, *Phys. Rev. E* **70**, 016214 (2004).
- [216] G V Kolmakov, A A Levchenko, M Yu Brazhnikov, L P Mezhev-Deglin, A N Silchenko and P V E McClintock, “Quasi-adiabatic decay of capillary turbulence on the charged surface of liquid hydrogen”, *Phys. Rev. Lett.* **93**, 074501 (2004).
- [217] M Yu Brazhnikov, G V Kolmakov, A A Levchenko, L P Mezhev-Deglin, A N Silchenko, and P V E McClintock, “Decay of the turbulent cascade of capillary waves at the surface of liquid hydrogen”, *JETP Lett.* **80**, 90–94 (2004).
- [218] H A Nichol, L Skrbek, P C Hendry and P V E McClintock, “Experimental investigation of the macroscopic flow of He II due to an oscillating grid in the zero temperature limit”, *Phys. Rev. E* **70**, 056307 (2004).
- [219] S Beri, P V E McClintock and R Mannella, “Dynamics importance sampling for the collection of switching events in vertical-cavity surface-emitting lasers”, *Fluctuation and Noise Lett.* **4**, L635–L641 (2004).
- [220] E D Leonel and P V E McClintock, “A hybrid Fermi-Ulam-bouncer model”, *J. Phys. A: Math. Gen.* **38**, 823–839 (2005).

- [221] G V Kolmakov, A A Levchenko, M Yu Brazhnikov, L P Mezhov-Deglin, A N Silchenko, and P V E McClintock, “Decay of the turbulent cascade of capillary waves on the charged surface of liquid hydrogen”, *J. Low Temp. Phys.* **138**, 519–524 (2005).
- [222] P C Hendry, P V E McClintock, H A Nichol, L Skrbek, and W F Vinen, “Questions related to the oscillatory flow of HeII through a grid at low temperatures”, *J. Low Temp. Phys.* **138**, 543–548 (2005).
- [223] V N Smelyanskiy, D G Luchinsky, A Stefanovska, and P V E McClintock, “Inference of a nonlinear stochastic model of the cardiorespiratory interaction”, *Phys. Rev. Lett.* **94**, 098101 (2005).
- [224] E D Leonel and P V E McClintock “A crisis in the dissipative Fermi accelerator model”, *J. Phys. A: Math. Gen.* **38**, L425-L430 (2005).
- [225] A Bandrivskyy, D G Luchinsky, P V E McClintock, V N Smelyanskiy and A Stefanovska, “Inference of systems with delay and applications to cardiovascular dynamics”, *Stochastics and Dynamics* **5**, 321–331 (2005).
- [226] A N Silchenko, S Beri, D G Luchinsky and P V E McClintock, “Fluctuational transitions across different kinds of fractal basin boundary”, *Phys. Rev. E* **71**(4) 046203 (2005)
- [227] M Yu Brazhnikov, G V Kolmakov, A A Levchenko, L P Mezhov-Deglin, and P V E McClintock, “Formation and decay of capillary turbulence on the charged surface of liquid hydrogen”, *J. Low Temp. Phys.* **139**, 523–530 (2005).
- [228] E D Leonel and P V E McClintock, “Scaling properties for a classical particle in a time-dependent potential well”, *Chaos* **15** (3), 033701 (2005).
- [229] S Beri, R Mannella, D G Luchinsky, A N Silchenko and P V E McClintock, “Solution of the boundary value problem for optimal escape in continuous stochastic systems and maps”, *Phys. Rev. E* **72** (3) 036131 (2005).
- [230] D G Luchinsky, M M Millonas, V N Smelyanskiy, A Pershakova, A Stefanovska and P V E McClintock, “Nonlinear statistical modeling and model discovery for cardiorespiratory data”, *Phys. Rev. E* **72** (2) 021905 (2005).
- [231] A G Balanov, N B Janson, V V Astakhov and P V E McClintock, “Role of saddle tori in the mutual synchronization of periodic oscillations”, *Phys. Rev. E* **72** (2) 026214 (2005).
- [232] I A Khovanov, N A Khovanova, E V Grigorieva, D G Luchinsky and P V E McClintock, “Dynamical control: Comparison of map and continuous flow approaches”, *Phys. Rev. Lett.* **96**, 083903 (2006).
- [233] E D Leonel and P V E McClintock, “Effect of a frictional force on the Fermi-Ulam model”, *J. Phys. A: Math. Gen.* **39**, 11399–11415 (2006).
- [234] E D Leonel and P V E McClintock, “Dissipative area-preserving one-dimensional Fermi accelerator model”, *Phys. Rev. E* **73**, 066223 (2006).
- [235] J K L da Silva, D G Ladeira, E D Leonel, P V E McClintock and S O Kamphorst, “Scaling properties of the Fermi-Ulam model”, *Brazilian J. Phys.* **36** 700–707 (2006).
- [236] G V Kolmakov, V B Efimov, A N Ganshin, P V E McClintock and L P Mezhov-Deglin, “Formation of a direct Kolmogorov-like cascade of second sound waves in He II”, *Phys. Rev. Lett.* **97**, 155301 (2006).
- [237] V B Efimov, O J Griffiths, P C Hendry, G V Kolmakov, P V E McClintock, and L Skrbek, “Experiments on the rapid mechanical expansion of liquid  $^4\text{He}$  through its superfluid transition”, *Phys. Rev. E* **74**, 056305 (2006).
- [238] S Bowong and P V E McClintock, “Adaptive synchronization between chaotic dynamical systems of different order”, *Phys. Lett. A* **358**, 134–141 (2006).
- [239] D Charalambous, L Skrbek, P C Hendry, P V E McClintock and W F Vinen, “Experimental investigation of the dynamics of a vibrating grid in superfluid  $^4\text{He}$  over a range of temperatures and pressures”, *Phys. Rev. E* **74**, 036307 (2006).
- [240] P S Landa, Yu. I. Neimark and P V E McClintock, “Changes in the effective parameters of averaged motion in nonlinear systems subject to noise”, *J. Stat. Phys.* **125**, 593–620 (2006).
- [241] G V Kolmakov, V B Efimov, A N Ganshin, P V E McClintock, E V Lebedeva and L P Mezhov-Deglin, “Nonlinear and shock waves in superfluid He II”, *Low Temperature Phys.* **32**, 999–1007 (2006).
- [242] D Charalambous, P C Hendry, M Holmes, G G Ihas, P V E McClintock and L Skrbek, “Quantum turbulence in He-4, oscillating grids, and where do we go next?”, *J. Low Temperature Phys.* **145**, 107–124 (2006).
- [243] V B Efimov, A N Ganshin, P V E McClintock, G V Kolmakov and L P Mezhov-Deglin, “Experimental study of the nonlinear second sound wave interaction in superfluid He-4”, *J. Low Temperature Phys.* **145**, 155–164 (2006).
- [244] G V Kolmakov, M Y Brazhnikov, A A Levchenko, A N Silchenko, P V E McClintock and L P Mezhov-Deglin, “Nonstationary nonlinear phenomena on the charged surface of liquid hydrogen”, *J. Low Temperature Phys.* **145**, 311–335 (2006).
- [245] B Musizza, A Stefanovska, P V E McClintock, M Paluš, J Petrovčič, S Ribarič and F F Bajrović, “Interactions between cardiac, respiratory, and EEG- $\delta$  oscillations in rats during anaesthesia”, *J. Physiol. (London)* **580**, 315–326 (2007).

- [246] I A Khovanov and P V E McClintock, “Synchronization of stochastic bistable systems by biperiodic signals”, *Phys. Rev. E* **76**, 031122 (2007).
- [247] J Jamsek, A Stefanovska and P V E McClintock, “Wavelet bispectral analysis for the study of interactions among oscillators whose basic frequencies are significantly time variable”, *Phys. Rev. E* **76**, 046221 (2007).
- [248] V B Efimov, A N Ganshin, P V E McClintock, G V Kolmakov, and L P Mezhov-deglin, “Nonlinear second sound waves and acoustic turbulence in superfluid He-4”, *J. Low Temperature Phys.* **148**, 251–255 (2007).
- [249] A Bahraminasab, D Kenwright, A Stefanovska, “Phase coupling in the cardiorespiratory interaction”, F Ghasemi and P V E McClintock, *IET Systems Biology* **2**, 48–54 (2008).
- [250] P S Landa, I A Khovanov and P V E McClintock PVE, “Theory of stochastic resonance for small signals in weakly damped bistable oscillators”, *Phys. Rev. E* **77**, 011111 (2008).
- [251] P V E McClintock, V B Efimov, A N Ganshin, G V Kolmakov and L P Mezhov-Deglin LP, “Turbulence of second sound waves in superfluid He-4: Effect of low-frequency resonant perturbation”, *J. Low Temperature Phys.* **150**, 394–401 (2008).
- [252] A Bahraminasab, F Ghasemi, A Stefanovska, P V E McClintock and H Kantz, “Direction of coupling from phases of interacting oscillators: A permutation information approach”, *Phys. Rev. Lett.* **100**, 084101 (2008).
- [253] A N Ganshin, P V E McClintock, V B Efimov, G V Kolmakov, and L P Mezhov-Deglin, “Observation of acoustic turbulence in a system of nonlinear second sound waves in superfluid He-4”, *Low Temperature Phys.* **34**, 288–292 (2008).
- [254] T R Charlton, R M Dalglish, O Kirichek, S Langridge, A Ganshin, and P V E McClintock, “Neutron reflection from a liquid helium surface”, *Low Temperature Phys.* **34**, 316–319 (2008).
- [255] I A Khovanov, D G Luchinsky, P V E McClintock and A N Silchenko, “Fluctuational escape from chaotic attractors in multistable systems”, *Int. J. of Bifurcation and Chaos* **18**, 1727–1739 (2008).
- [256] A N Ganshin, V B Efimov, G V Kolmakov, L P Mezhov-Deglin and P V E McClintock, “Observation of an inverse energy cascade in developed acoustic turbulence in superfluid helium”, *Phys. Rev. Lett.* **101**, 065303 (2008).
- [257] D Garcia-Alvarez, A Stefanovska and P V E McClintock, “High-order synchronization, transitions, and competition among Arnold tongues in a rotator under harmonic forcing”, *Phys. Rev. E* **77** 056203 (2008).
- [258] J H Sheeba, A Stefanovska and P V E McClintock, “Neuronal synchrony during anesthesia: A thalamocortical model”, *Biophys. J.* **95**, 2722–2727 (2008).
- [259] J H Sheeba, V K Chandrasekar, A Stefanovska and P V E McClintock, “Routes to synchrony between asymmetrically interacting oscillator ensembles”, *Phys. Rev. E* **78**, 025201 (2008).
- [260] D G Luchinsky, V N Smelyanskiy, A Duggento and P V E McClintock, “Inferential framework for nonstationary dynamics. I. Theory”, *Phys. Rev. E* **77**, 061105 (2008).
- [261] A Duggento, D G Luchinsky, V N Smelyanskiy, I A Khovanov and P V E McClintock, “Inferential framework for nonstationary dynamics. II. Application to a model of physiological signaling”, *Phys. Rev. E* **77**, 061106 (2008).
- [262] A Bernjak, P B M Clarkson, P V E McClintock and A Stefanovska, “Low frequency oscillations in congestive heart failure and after  $\beta$ 1-blockade treatment”, *Microvasc. Res.* **76**, 224–232 (2008); doi: <http://dx.doi.org/10.1016/j.mvr.2008.07.006>.
- [263] D G Luchinsky, V N Smelyanskiy, M Millonas and P V E McClintock, “Dynamical inference of hidden biological populations”, *Eur. Phys. J. B* **65**, 369–377 (2008).
- [264] D A Kenwright, A Bahraminasab, A Stefanovska, and P V E McClintock, “The effect of low-frequency oscillations on cardio-respiratory synchronization”, *Eur. Phys. J. B* **65**, 425–433 (2008).
- [265] J A Gonzalez, M A Garcia-Nustes, A Sanchez, and P V E McClintock, “Hawking-like emission in kink-soliton escape from a potential well”, *New J. Phys.* **10**, 113015 (2008).
- [266] V B Efimov, A N Ganshin, and P V E McClintock, “Statistical properties of strongly nonlinear waves within a resonator”, *Phys. Rev. E* **78**, 066611 (2008).
- [267] G V Kolmakov, M Y Brazhnikov, A A Levchenko, L V Abdurakhimov, P V E McClintock and L P Mezhov-Deglin, “Capillary turbulence on the surfaces of quantum fluids”, in M Tsubota and W P Halperin, eds., *Progress in Low Temperature Physics: Quantum Turbulence* (vol. XVI of series), Elsevier, Amsterdam, 2009, pp306–349.
- [268] D G Luchinsky, R Tindjong, I Kaufman, P V E McClintock and R S Eisenberg, “Charge fluctuations and their effect on conduction in biological ion channels”, *J. Stat. Mech.* P01010 (2009).
- [269] I A Khovanov, N A Khovanova, P V E McClintock, and A Stefanovska, “Intrinsic dynamics of heart regulatory systems on short timescales: from experiment to modelling”, *J. Stat. Mech.* P01016 (2009).
- [270] A Duggento, D G Luchinsky, V N Smelyanskiy, and P V E “Inferential framework for non-stationary dynamics: theory and applications”, *J. Stat. Mech.* P01025 (2009).
- [271] J J Suarez-Vargas, J A Gonzalez, A Stefanovska A, and P V E McClintock “Diverse routes to oscillation death in a coupled-oscillator system”, *Europhys. Lett.* **E85**, 38008 (2009).

- [272] J H Sheeba, V K Chandrasekar, A Stefanovska, and P V E McClintock, “Asymmetry-induced effects in coupled phase-oscillator ensembles: Routes to synchronization”, *Phys. Rev. E* **79**, 046210 (2009).
- [273] D G Luchinsky, R Tindjong, I Kaufman, P V E McClintock, and R S Eisenberg, “Self-consistent analytic solution for the current and the access resistance in open ion channels”, *Phys. Rev. E* **80**, 021925 (2009).
- [274] V N Smelyanskiy, D G Luchinsky, M M Millonas, and P V E McClintock, “Recovering ‘lost’ information in the presence of noise: application to rodentpredator dynamics”, *New J. Phys.* **11**, 053012 (2009).
- [275] A Bahraminasab, F Ghasemi, A Stefanovska, P V E McClintock, and R Friedrich, “Physics of brain dynamics: Fokker-Planck analysis reveals changes in EEG  $\delta$ - $\theta$  interactions in anaesthesia”, *New J. Phys.* **11**, 103051 (2009).
- [276] V B Efimov, A N Ganshin, G V Kolmakov, P V E McClintock, and L P Mezhov-Deglin, “Acoustic turbulence in superfluid  $^4\text{He}$ ”, *J. Low Temp. Phys.* **156**, 95–115 (2009).
- [277] D García-Álvarez, A Bahraminasab, A Stefanovska and P V E McClintock, “Competition between noise and coupling in the induction of synchronisation”, *EPL* **88**, 30005 (2009).
- [278] Y Shioagai, A Stefanovska and P V E McClintock, “Nonlinear dynamics of cardiovascular ageing”, *Phys. Rep.* **488**, 51–110 (2010).
- [279] S M Soskin, P V E McClintock, T M Fromhold, I A Khovanov and R Mannella, “Stochastic webs and quantum transport in superlattices: an introductory review”, *Contemp. Phys.* **51**, 233–248 (2010).
- [280] S M Soskin, R Mannella, O M Yevtushenko, I A Khovanov and P V E McClintock, “A New Approach to the Treatment of Separatrix Chaos and its Applications”, in *Hamiltonian Chaos Beyond the KAM Theory*, ed. A C J Luo and V Afraimovich, Nonlinear Physical Science, Higher Education Press, Beijing, Springer, Heidelberg, 2010, pp. 51-141.
- [281] A N Ganshin, V B Efimov, G V Kolmakov, L P Mezhov-Deglin and P V E McClintock, “Experiments on wave turbulence: the evolution and growth of second sound acoustic turbulence in superfluid  $^4\text{He}$  confirm self-similarity”, *New J. Phys.* **12**, 083047 (2010). DOI: 10.1088/1367-2630/12/8/083047.
- [282] V B Efimov, D Garg, O Kolosov and P V E McClintock, “Direct measurement of the critical velocity above which a tuning fork generates turbulence in superfluid helium”, *J. Low Temp. Phys.* **158**, 456-461 (2010). DOI: 10.1007/s10909-009-0026-5.
- [283] V B Efimov, D Garg, M Giltrow, P V E McClintock, L Skrbek and W F Vinen, “Experiments on a high quality grid oscillating in superfluid  $^4\text{He}$  at very low temperatures”, *J. Low Temp. Phys.* **158**, 462-467 (2010). DOI: 10.1007/s10909-009-9992-x.
- [284] P S Landa and P V E McClintock, “Æolian tones and stall flutter of lengthy objects in fluid flows”, *J. Phys. A: Math. Theor.* **43**, 375101 (2010). DOI: 10.1088/1751-8113/43/37/375101.
- [285] U E Vincent, O I Olusola, D Mayer and P V E McClintock, “Controlling current reversals in synchronized underdamped ratchets”, *J. Phys. A: Math. Theor.* **43**, 165101 (2010). DOI: 10.1088/1751-8113/43/16/165101.
- [286] V Ruban, Y Kodama, M Ruderman, J Dudley, R Grimshaw, P V E McClintock, M Onorato, C Kharif, E Pelinovsky, T Soomere, G Lindgren, N Akhmediev, A Slunyaev, D Solli, C Ropers, B Jalali, F Dias, and A Osborne, “Rogue waves - towards a unifying concept?: Discussions and debates”, *Eur. Phys. J. Special Topics* **185**, 5–15 (2010).
- [287] V B Efimov, A N Ganshin, G V Kolmakov, P V E McClintock, and L P Mezhov-Deglin, “Rogue waves in superfluid helium”, *Eur. Phys. J. Special Topics* **185**, 181–193 (2010).
- [288] L W Sheppard, A Stefanovska, and P V E McClintock, “Detecting the harmonics of oscillations with time-variable frequencies”, *Phys. Rev. E* **83**, 016206 (2011).
- [289] L W Sheppard, V Vuksanović, P V E McClintock and A Stefanovska, “Oscillatory dynamics of vasoconstriction and vasodilation identified by time-localized phase coherence”, *Phys. Med. Biol.* **56**, 3583-3601 (2011).
- [290] R Mannella and P V E McClintock, “Comment on ‘Influence of Noise on Force Measurements’”, *Phys. Rev. Lett.* **107** 078901 (2011).
- [291] A Stefanovska, L W Sheppard, T Stankovski, and P V E McClintock, “Reproducibility of LDF blood flow measurements: Dynamical characterization versus averaging”, *Microvasc. Res.* **82**(3), 274–276 (2011).
- [292] P S Landa and P V E McClintock, “Initiation of turbulence and chaos in non-equilibrium inhomogeneous media: wave beams”, *J. Phys. A: Math. Theor.* **44**(47), 475501 (2011).

## B. SCIENTIFIC PAPERS (CONFERENCE PROCEEDINGS)

- [293] P V E McClintock, I P Morton and H M Rosenberg, “The thermal conductivity of paramagnetic crystals at low temperatures in magnetic fields”; *Proc. of the International Conference on Magnetism at Nottingham*, 1964, published by the Institute of Physics, 1964, pp 455-6.
- [294] P V E McClintock and H M Rosenberg, “The thermal conductivity of paramagnetic crystals at low temperatures in magnetic fields”; *Bulletin de l’Institut du Froid*, Supplement, Proc. of Commission I, International Institute of Refrigeration, Grenoble, 1965, pp 107-15.

- [295] P V E McClintock, K H Mueller, R A Guyer and H A Fairbank, “Measurement and analysis of the velocity of second sound in concentrated He-3/He-4 solutions”; *Proc. of the 11th International Conference on Low Temperature Physics*, St Andrews, 1968, ed J F Allen, Finlayson and McCall, vol 1, pp 379-83 and 394.
- [296] A Hickson and P V E McClintock, “Injection of charge into liquid helium by field emission and field-ionisation”; *Proc. of the 12th International Conference on Low Temperature Physics*, Kyoto, 1970; ed E Kanda, Tokyo, Keigaku Publishing Co, pp 95-7.
- [297] P V E McClintock, “Thermal conduction in He II below 0.8K near a field emission current source”; *Proc. of the 12th International Conference on Low Temperature Physics*, Kyoto, 1970; ed E Kanda, Tokyo, Keigaku Publishing Co, pp 101-2.
- [298] P V E McClintock, “Measurements of ionic mobilities in liquid He-3 by a spacecharge method”; *Proc. of the 13th International Conference on Low Temperature Physics*, Boulder, 1972; ed K D Timmerhaus, W J O’Sullivan and E F Hammel, Plenum Press, New York, vol I, pp 434-8.
- [299] D R Allum, P V E McClintock and A Phillips, “Non-turbulent breakdown of superfluidity in He II”; *Proc. of the 14th International Conference on Low Temperature Physics*, Helsinki, 1975; ed M Krusius and M Vuorio, North-Holland Publishing Co, Amsterdam, vol 1, pp 248-51.
- [300] D R Allum and P V E McClintock, “Rings among the rotons: measurements of the vortex nucleation rate for negative ions whose drift velocities are limited by roton emission”; *Proc. of the 15th International Conference on Low Temperature Physics*, Grenoble, 1978: *Supplement de Journal de Physique* **C6**, pp 174-5 (1978).
- [301] R Golub, P Ageron, W Mampe and P V E McClintock, “A super-thermal source for ultra-cold neutrons”; *Proc. of the Third International Symposium on Neutron Capture, Gamma Ray Spectroscopy and Related Phenomena*, in *Neutron Capture Gamma Ray Spectroscopy*, eds R E Chrien and W R Kane, Plenum, New York and London, pp 615-7 (1978).
- [302] T Ellis and P V E McClintock, “Search for single-roton emission from negative ions in He II”; *Proc. of the 16th International Conference on Low Temperature Physics*, Los Angeles, 1981: *Physica* **107B**, pp 569-70 (1981).
- [303] R M Bowley, P V E McClintock, F E Moss and G G Nancolas, “Roton assisted vortex nucleation in isotopically pure superfluid He-4”; *Proc. of the 16th International Conference on Low Temperature Physics*, Los Angeles, 1981: *Physica* **107B**, pp 571-2 (1981).
- [304] P V E McClintock, F E Moss, G G Nancolas and P C E Stamp, “Profound influence of isotopic impurities on vortex nucleation in He II”; *Proc. of the 16th International Conference on Low Temperature Physics*, Los Angeles, 1981: *Physica* **107B**, pp 573-4 (1981).
- [305] C I Jewell, B Heckel, P Ageron, R Golub W Mampe and P V E McClintock, “Observation of the storage of ultra-cold neutrons in liquid helium”; *Proc. of the 16th International Conference on Low Temperature Physics*, Los Angeles, 1981: *Physica* **107B**, pp 587-8 (1981).
- [306] P V E McClintock, T H Ngan and J C H Small, “A continuous flow helium isotopic separation cryostat”; *Proc. of the 16th International Conference on Low Temperature Physics*, Los Angeles, 1981: *Physica* **107B**, pp 597-8 (1981).
- [307] P V E McClintock, “Ions and the breakdown of superfluidity of He II” in *Proc. of the 75th Jubilee Conference on Helium-4*, St Andrews, 1983 ed J G M Armitage, World Scientific, Singapore, pp 184-89 (1983).
- [308] T Ellis R M Bowley and P V E McClintock, “Pressure dependence of the hydrodynamic effective mass of the negative ion in He II”; in *Proc. of the 75th Jubilee Conference on Helium-4*, St Andrews, 1983 ed J G M Armitage, World Scientific, Singapore, pp 190-91 (1983).
- [309] G G Nancolas, R M Bowley and P V E McClintock, “Concentration dependence of the vortex nucleation rate due to negative ions in ultra-dilute He-3/He-4 solutions”; in *Proc. of the 75th Jubilee Conference on Helium-4*, St Andrews, 1983 ed J G M Armitage, World Scientific, Singapore, pp 192-93 (1983).
- [310] V L Eden and P V E McClintock, “The fast negative ion in He II”; in *Proc. of the 75th Jubilee Conference on Helium-4*, St Andrews, 1983 ed J G M Armitage, World Scientific, Singapore, pp 194-95 (1983).
- [311] G G Nancolas, R M Bowley and P V E McClintock, “Quantum desorption of He-3 atoms from negative ions in He II”; in *Proc. of the 17th International Conference on Low Temperature Physics*, Karlsruhe, 1984; North-Holland, Amsterdam (1984), pp 285-86.
- [312] T Ellis and P V E McClintock, “Anomalous behaviour of negative ions in He II”; in *Proc. of the 17th International Conference on Low Temperature Physics*, Karlsruhe, 1984; North-Holland, Amsterdam (1984), pp 287-88.
- [313] T Ellis and P V E McClintock, “Pressure dependence of the Landau critical velocity in He II: a progress report”; in *Proc. of the 17th International Conference on Low Temperature Physics*, Karlsruhe, 1984; North-Holland, Amsterdam (1984), pp 301-02.
- [314] P C Hendry and P V E McClintock, “He-3/He-4 isotopic ratio measurements to below the  $10^{-12}$  level”; in *Proc. of the 17th International Conference on Low Temperature Physics*, Karlsruhe, 1984; North-Holland, Amsterdam (1984), pp 417-18.

- [315] F E Moss and P V E McClintock, “Experimental studies of noise-induced transitions”; in Proc. of International Conference on Fluctuations and Sensitivity in Nonequilibrium Systems, *Fluctuations and Sensitivity in Nonequilibrium Systems*, ed W Horsthemke and D K Kondepudi, Springer-Verlag, Berlin (1984), pp 134-42.
- [316] P Hanggi, F E Moss and P V E McClintock, “Bistability driven by coloured noise: theory and experiment”; in *Proc. of Conference on Noise in Physical Systems and 1/f Noise*, 1985, ed A D’Amico and P Mazzetti, Elsevier, Amsterdam, 1986, pp 121-124.
- [317] F Moss, D K Kondepudi and P V E McClintock, “Branch selectivity at a pitchfork bifurcation in the presence of noise”; in *Proc. of Conference on Noise in Physical Systems and 1/f Noise*, 1985, ed A D’Amico and P Mazzetti, Elsevier, Amsterdam, 1986, pp 125-28.
- [318] R C M Dow, C J Lambert, R Mannella, P V E McClintock and F Moss, “Response of a cubic bistable system to parametric modulation in the extreme colour limits of external noise”; in *Proc. of Conference on Noise in Physical Systems and 1/f Noise*, 1985, ed A D’Amico and P Mazzetti, Elsevier, Amsterdam, 1986, pp 133-36.
- [319] P V E McClintock and F Moss, “Stochastic postponement of critical onsets in a bistable system”; in *Proc. of Conference on Noise in Physical Systems and 1/f Noise*, 1985, ed A D’Amico and P Mazzetti, Elsevier, Amsterdam, 1986, pp 137-140.
- [320] P V E McClintock, R Mannella, J M Sancho and F Moss, “Correlation times in the cubic bistable system”; in *Proc. of Conference on Noise in Physical Systems and 1/f Noise*, 1985, ed A D’Amico and P Mazzetti, Elsevier, Amsterdam, 1986, pp 141-144.
- [321] F Moss, J M Sancho, P V E McClintock and R Mannella, “Relaxation times in a bistable system: theory and experiment”; in Proc. of meeting at Bellaterra School of Thermodynamics, Autonomous University of Barcelona, *Recent Developments in Nonequilibrium Thermodynamics: Fluids and Related Topics*, ed J Casas-Vasquez, D Jou and J M Rubi, Springer-Verlag, Berlin, 1986, pp 299-304.
- [322] P C Hendry, N S Lawson, P V E McClintock, C D H Williams and R M Bowley, “Evidence for an energy barrier impeding the creation of quantized vortices in He II”; *Proc. 18th Int. Conf. on Low Temperature Phys. Kyoto, 1987, Japanese Journal of Applied Physics* **26**, Suppl. 26-3, pp 73-74 (1987).
- [323] C D H Williams, P C Hendry and P V E McClintock, “Production of fast and exotic negative ions in He II”; *Proc. 18th Int. Conf. on Low Temperature Phys. Kyoto, 1987, Japanese Journal of Applied Physics* **26**, Suppl. 26-3, pp 105-6 (1987).
- [324] M I Dykman, R Mannella, P V E McClintock, F Moss and S M Soskin, “Spectral density of fluctuations in a bistable potential” (in Russian); *Proc. of the 5th All-Union Conference on Fluctuational Phenomena*, Institute for Semiconductor Physics, Vilnius, 1988, pp 23-25.
- [325] P C Hendry, N S Lawson, P V E McClintock, C D H Williams and R M Bowley, “Inhibition of vortex nucleation by phonons in He II”; Proc. of the Hiroshima Symposium, 1987, *Elementary Excitations in Quantum Fluids*, ed K Ohbayashi and M Watabe, Springer-Verlag, Berlin, 1989, pp 184-188.
- [326] C D H Williams, P C Hendry and McClintock, “Excitation emission from ions moving at supercritical velocities in He II”; Proc. of the Hiroshima Symposium, 1987, *Elementary Excitations in Quantum Fluids*, ed K Ohbayashi and M Watabe, Springer-Verlag, Berlin, 1989, pp 192-196.
- [327] G Davies, C J Lambert, N S Lawson, R A M Lee, R Mannella, P V E McClintock and N G Stocks, “Chaos in a superconducting saucer”; in *Proc. of 19th International Conference on Low Temperature Physics*, Brighton, 1990, *Physica B* **165**, **166**, 117-118 (1990).
- [328] P C Hendry, N S Lawson, P V E McClintock, C D H Williams and R M Bowley, “Pressure dependence of vortex tunnelling in He II”; in *Proc. of 19th International Conference on Low Temperature Physics*, Brighton, 1990, *Physica B* **165**, **166**, 757-758 (1990).
- [329] M I Dykman, R Mannella, P V E McClintock and N G Stocks, “Supernarrow spectral peaks: new critical phenomena in optically bistable systems”; in *OSA Proceedings on Nonlinear Dynamics in Optical Systems* vol 7, ed N B Abraham, E M Garmire and P Manuel, Optical Society of America, Washington DC, 1991, pp 266-270.
- [330] P V E McClintock and R M Bowley, “Vortex creation in superfluid helium-4”; in *Proc. of Conference on Excitations in Two-Dimensional and Three-Dimensional Quantum Fluids*, Exeter, 1990, ed A F G Wyatt and H J Lauter, Plenum, New York, 1991, pp 567-578.
- [331] D G Luchinsky, G P Golubev, A L Velikovich, M I Dykman, P V E McClintock, N D Stein and N G Stocks, “Stochastic resonance in a passive bistable system”; in *Nonlinear Optical Processes in Solids*, SPIE **1841**, 1991, pp 287-289.
- [332] M I Dykman, D G Luchinsky, P V E McClintock, N D Stein and N G Stocks, “Noise-enhanced heterodyning”; in *Proc. of Conference on Noise in Physical Systems and 1/f Fluctuations*, St Louis, 1993 ed P H Handel and A L Chung, American Institute of Physics, New York, 1993, pp 507-510.
- [333] M I Dykman, D G Luchinsky, P V E McClintock, R Mannella, N D Stein and N G Stocks, “Fluctuational transitions and critical phenomena in a periodically driven nonlinear oscillator subject to weak noise”; in *Proc. of Conference on Noise in Physical Systems and 1/f Fluctuations* St Louis, 1993 ed P H Handel and A L Chung, American Institute of Physics, New York, 1993, pp 511-514.

- [334] M I Dykman, R Mannella, P V E McClintock and N G Stocks, “Phase shifts and nonlinear effects in stochastic resonance”; in *Proc. of Conference on Future Directions of Nonlinear Dynamics in Physical and Biological Systems*, ed P L Christianson, J C Eilbeck and R D Parmentier, Plenum, New York, 1993, pp 153-156.
- [335] P C Hendry, N S Lawson, R A M Lee, P V E McClintock and C D H Williams, “Creation of quantized vortices at the lambda transition in liquid helium-4”; in *Proc. of Conference on Role of Condensate and Vorticity in Dense Bose Systems*, Minneapolis, 1993, *J. Low Temperature Phys.* **93**, 1059-1067 (1993).
- [336] P C Hendry, N S Lawson, R A M Lee, P V E McClintock and C D H Williams, “Vortex creation in a fast adiabatic expansion through the lambda transition”; in *Proc. 20th Int. Conf. on Low Temp. Phys.*, Eugene, 1993, ed R J Donnelly, *Physica B* **194-196**, 711-712 (1994).
- [337] P C Hendry, N S Lawson, P V E McClintock and M Y A Wahab, “Anomalous temperature dependence of the vortex nucleation rate due to negative ions in ultradilute superfluid  $^3\text{He}/^4\text{He}$  solutions”; in *Proc. 20th Int. Conf. on Low Temperature Phys.*, Eugene, 1993, ed R J Donnelly, *Physica B*, **194-196**, 843-844 (1994).
- [338] P V E McClintock, “Vortex creation in He II”, in *Proc. of 1st International Workshop on Quantum Vorticity and Turbulence in He II Flows* in Göttingen, 1993, ed G Stamm and W Fiszdon, Max-Planck-Institut für Strömungsforschung, Göttingen, 1994, pp 9-10.
- [339] M I Dykman, D G Luchinsky, P V E McClintock, R Mannella, S M Soskin, N D Stein and N G Stocks, “Stochastic resonance”; in *Proc. IUTAM Symposium on Nonlinearity and Chaos in Engineering Systems*, University College London, 1993, published as chapter 22 of *Nonlinearity and Chaos in Engineering Dynamics*, ed J M T Thompson and S R Bishop, Wiley, Chichester, 1994.
- [340] M I Dykman, G P Golubev, I K Kaufman, D G Luchinsky, E A Zhukov, P V E McClintock, N D Stein and N G Stocks, “Optical heterodyning noise-protected with stochastic resonance”; in *Proc. of International Conference on Optical Computing*, Edinburgh, 1994, *Inst. Phys. Conf. Ser.* No 139: Part III, 389-392 (1995).
- [341] M I Dykman, G P Golubev, I Kaufman, D G Luchinsky, P V E McClintock and E A Zhukov, “Fluctuations, stochastic resonance and noise-protected heterodyning in bistable optical systems”; Proc. of the International Workshop on Fluctuations in Physics and Biology, Elba, 1994, *Nuovo Cimento D* **17**, 743-754 (1995).
- [342] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, H E Short, N D Stein and N D Stocks “Noise-enhanced two-photon absorption by a nonlinear oscillator” ; in Proc. of the 13th International Conference *Noise in Physical Systems and 1/f Fluctuations*, Palanga, 1995, ed. V Bareikis and R Katilius, World Scientific, Singapore, 1995, pp 137-140.
- [343] A B Neiman, S M Soskin and P V E McClintock, “Dynamical chaos in zero-dispersion nonlinear resonance”; in Proc. of the 13th International Conference *Noise in Physical Systems and 1/f Fluctuations*, Palanga, 1995, ed. V Bareikis and R Katilius, World Scientific, Singapore, 1995, pp 701-704.
- [344] D G Luchinsky, P V E McClintock, S M Soskin and R Mannella, “Fluctuations in zero-dispersion nonlinear resonance”; in Proc. of the 13th International Conference *Noise in Physical Systems and 1/f Fluctuations*, Palanga, 1995, ed. V Bareikis and R Katilius, World Scientific, Singapore, 1995, pp 705-708.
- [345] P C Hendry, N S Lawson, R A M Lee, P V E McClintock and C D H Williams, “Cosmological experiments in liquid  $^4\text{He}$ : status and prospects”; *Physica B* **210**, 209-214 (1995).
- [346] P V E McClintock, “Ions and the Landau critical velocity in He II”; in *Proc. of Conference on Ions and Atoms in Superfluid Helium*, Heidelberg, 1994, *Z. Phys. B* **98**, 429-434 (1995).
- [347] P C Hendry, N S Lawson, R A M Lee, P V E McClintock, and C D H Williams, “Cosmological experiments in liquid  $^4\text{He}$  - problems and prospects”; in *Proc. of NATO Advanced Study Institute and Euroconference on Formation and Interactions of Topological Defects*, Cambridge, 1994, *Formation and Interactions of Topological Defects*, ed. A C Davis and R N Brandenberger, Plenum, New York, 1995, pp 379-387.
- [348] M I Dykman, D G Luchinsky, R Mannella, P V E McClintock, N D Stein and N G Stocks “Stochastic resonance and its precursors”; in *Proc. of Interdisciplinary Workshop on Fluctuations and Order* Los Alamos, 1993, *Fluctuations and Order: the New Synthesis*, ed. M Millonas, Springer, Berlin, 1996, pp 11-33.
- [349] N G Stocks, N D Stein, H E Short, P V E McClintock, R Mannella, D G Luchinsky and M I Dykman, “Noise induced linearisation and delinearisation”; in *Proc. of Interdisciplinary Workshop on Fluctuations and Order* Los Alamos, 1993, *Fluctuations and Order: the New Synthesis*, ed. M Millonas, Springer, Berlin, 1996, pp 53-68.
- [350] M E Dodd, P C Hendry, N S Lawson, R A M Lee and P V E McClintock, “Experiments on the Kibble mechanism in liquid  $^4\text{He}$ ”; Proc. 21st International Conference on Low Temperature Phys., LT21, Prague, 1996, *Czech. J. Phys.* **49**, Suppl. S1, 35-36 (1996).
- [351] M E Dodd, P C Hendry, N S Lawson, R A M Lee and P V E McClintock, “Vortex creation in the expansion of He-II from just below the lambda transition”; Proc. 21st International Conference on Low Temperature Phys., LT21, Prague, 1996, *Czech. J. Phys.* **49**, Suppl. S1, 43-44 (1996).
- [352] S I Davis, P C Hendry, N S Lawson and P V E McClintock, “Vortex generation in He-II below 100 mK”; Proc. 21st International Conference on Low Temperature Phys., LT21, Prague, 1996, *Czech. J. Phys.* **49**, Suppl. S1, 45-46 (1996).

- [353] I Kh Kaufman, D G Luchinsky, P V E McClintock, S M Soskin and N D Stein, “Stochastic signal enhancement in SQUIDS”; Proc. 21st International Conference on Low Temperature Phys., LT21, Prague, 1996, *Czech. J. Phys.* **49**, Suppl. S5, 2827–2828 (1996).
- [354] S M Soskin, D G Luchinsky, R Mannella, A B Neiman and P V E McClintock, “Zero-dispersion nonlinear resonance”; Proc. of International Conference on Nonlinear Dynamics and Chaos, ICND–96, Saratov, 1996, *Int. J. of Bifurcation and Chaos* **7**, 923–936 (1997).
- [355] S M Soskin, P V E McClintock, N D Stein, A B Neiman, R Mannella and V Isaia, “Zero-dispersion nonlinear resonance in underdamped SQUIDS”; Proc. 14th International Conference on *Noise in Physical Systems and 1/f Fluctuations*, Leuven, 1997, ed. C Claes, World Scientific, Singapore, 1997, 333–336.
- [356] S M Soskin, R Mannella, V Isaia, A B Neiman and P V E McClintock, “Chaos in periodically driven dissipative zero-dispersion systems”; Proc. 14th International Conference on *Noise in Physical Systems and 1/f Fluctuations*, Leuven, 1997, ed. C Claes, World Scientific, Singapore, 1997, pp 351–354.
- [357] D G Luchinsky, P V E McClintock and I Kh Kaufman, “Fluctuations and macroscopic irreversibility”; Proc. 14th International Conference on *Noise in Physical Systems and 1/f Fluctuations*, Leuven, 1997, ed. C Claes, World Scientific, Singapore, 1997, pp 377–380.
- [358] A Arrayás, P V E McClintock, N D Stein, R Mannella and A J McKane, “Current reversals in a ratchet driven by quasimonochromatic noise”; Proc. 14th International Conference on *Noise in Physical Systems and 1/f Fluctuations*, Leuven, 1997, ed. C Claes, World Scientific, Singapore, 1997, pp 381–384.
- [359] M I Dykman, M N Smelyanskiy, C J Lambert, D G Luchinsky and P V E McClintock, “Nonlinear Dynamics of Large Fluctuations”; Proc. International Conference on *Applied Nonlinear Dynamics and Stochastic Systems near the Millennium*, San Diego, 1997, ed. J B Kadtke and A Bulsara, American Institute of Physics, Woodbury, NY, 1997, pp 157–162.
- [360] S I Davis, P C Hendry and P V E McClintock, “Decay of quantized vorticity in superfluid  $^4\text{He}$  at mK temperatures”, *Physica B* **280**, 43–44 (2000).
- [361] M Arrayas, I A Khovanov, D G Luchinsky, R Mannella, P V E McClintock, M Greenall, H Sabbagh, “Experimental studies of the non-adiabatic escape problem” in D S Broomhead, E A Luchinskaya, P V E McClintock and T Mullin, ed., *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), American Institute of Physics, Melville, NY, 2000, pp 20–25.
- [362] M Arrayás, M I Dykman, R Mannella, P V E McClintock, and N D Stein, “A phase transition in a system driven by coloured noise” in D S Broomhead, E A Luchinskaya, P V E McClintock and T Mullin, ed., *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), American Institute of Physics, Melville, NY, 2000, pp 42–47.
- [363] I A Khovanov, V S Anishchenko, D G Luchinsky and P V E McClintock, “Noise-induced escape from different types of chaotic attractor”, in D S Broomhead, E A Luchinskaya, P V E McClintock and T Mullin, ed., *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), American Institute of Physics, Melville, NY, 2000, pp 48–53.
- [364] S M Soskin, V I Sheka, T L Linnik, M Arrayás, I Kh Kaufman, D G Luchinsky, P V E McClintock and R Mannella, “The Kramers problem: beyond quasi-stationarity” in D S Broomhead, E A Luchinskaya, P V E McClintock and T Mullin, ed., *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), American Institute of Physics, Melville, NY, 2000, pp 60–67.
- [365] M Bračić, P V E McClintock and A Stefanovska, “Characteristic frequencies of the human blood distribution system”, in D S Broomhead, E A Luchinskaya, P V E McClintock and T Mullin, ed., *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), American Institute of Physics, Melville, NY, 2000, pp 146–153.
- [366] S M Soskin, R Mannella, A B Neiman, A N Silchenko, D G Luchinsky, and P V E McClintock, “A criterion for the onset of chaos in weakly dissipative periodically driven systems”, in D S Broomhead, E A Luchinskaya, P V E McClintock and T Mullin, ed., *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), American Institute of Physics, Melville, NY, 2000, pp 443–449.
- [367] N A Khovanova, I A Khovanov, V S Anishchenko and P V E McClintock, “The role of noise in forming the dynamics of a quasiperiodic system”, in D S Broomhead, E A Luchinskaya, P V E McClintock and T Mullin, ed., *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), American Institute of Physics, Melville, NY, 2000, pp 488–496.
- [368] S M Soskin, V I Sheka, T L Linnik, M Arrayás, I Kh Kaufman, D G Luchinsky, P V E McClintock, R Mannella, “Short time-scales in the Kramers problem”, in D Abbott and L B Kish, ed., *Unsolved Problems of Noise and Fluctuations* (proceedings of the conference in Adelaide, July 1999), American Institute of Physics, Melville, NY, 2000, pp 503–508.
- [369] M I Dykman, I A Khovanov, D G Luchinsky, R Mannella, P V E McClintock and V N Smelyanskiy, “Activated escape of driven systems”, in D Abbott and L B Kish, ed., *Unsolved Problems of Noise and Fluctuations* (proceedings of the conference in Adelaide, July 1999), American Institute of Physics, Melville, NY, 2000, pp 515–520.
- [370] D.G. Luchinsky, I.A. Khovanov and P.V.E. McClintock, “Fluctuational transitions in periodically-driven nonlinear oscillators”, in M Robnik, Y Aizawa, H Hasegawa and Y Kuramoto ed., Proceedings of the 4th Summer School/Conference *Let’s Face Chaos through Nonlinear Dynamics*, Maribor, 1999, *Prog. in Theoretical Phys.*, Supplement **139**, 152–163 (2000).

- [371] D G Luchinsky, R Mannella and P V E McClintock, “Computation of transport in Brownian ratchets”, in G Osipenko ed., Proceedings of the 3rd International Conference on Tools for Mathematical Modelling, *Math. Research* **8**, St. Petersburg, 2001, pp 69–74.
- [372] D G Luchinsky, P V E McClintock and A Stefanovska, “Synchronization of cardiovascular oscillators in the presence of noise”, in G Osipenko ed., Proceedings of the 3rd International Conference on Tools for Mathematical Modelling, *Math. Research* **8**, St. Petersburg, 2001, pp 75–84.
- [373] V N Smelyanskiy, D A Timucin, D G Luchinsky, A Stefanovska, A Bandrivskyy and P V E McClintock, “Time-Varying Cardiovascular Oscillations”, in N S Namachchivaya and Y K Lin ed. *IUTAM Symposium on Nonlinear Stochastic Dynamics*, (proceedings of the conference in Allerton Park, University of Illinois, Urbana, August 2002), Kluwer, Dordrecht, 2003, pp 455–464.
- [374] A Bandrivskyy, S Beri, D G Luchinsky and P V E McClintock, “Experiments on Large Fluctuations”, in N S Namachchivaya and Y K Lin ed. *IUTAM Symposium on Nonlinear Stochastic Dynamics*, (proceedings of the conference in Allerton Park, University of Illinois, Urbana, August 2002), Kluwer, Dordrecht, 2003, pp 19–28.
- [375] A Stefanovska, A Bandrivskyy and P V E McClintock, “Cardiovascular Dynamics – Multiple Time Scales, Oscillations and Noise”, in S M Bezrukov ed., *Unsolved Problems of Noise and Fluctuations in Physics, Biology and High Technology* (proceedings of the conference in Bethesda, September 2002), American Institute of Physics, Melville, NY, 2003, pp392–399.
- [376] I A Khovanov, D G Luchinsky, R Mannella, P V E McClintock and A N Silchenko, “Fluctuational escape from chaotic attractors”, in S M Bezrukov ed., *Unsolved Problems of Noise and Fluctuations in Physics, Biology and High Technology* (proceedings of the conference in Bethesda, September 2002), American Institute of Physics, Melville, NY, 2003, pp 435–442.
- [377] A Bandrivskyy, S Beri, D G Luchinsky and P V E McClintock, “Singularities in Far-from-Equilibrium Distributions at Finite Noise Intensities”, in S M Bezrukov ed., *Unsolved Problems of Noise and Fluctuations in Physics, Biology and High Technology* (proceedings of the conference in Bethesda, September 2002), American Institute of Physics, Melville, NY, 2003, pp 451–457 .
- [378] O J Griffiths, P C Hendry, P V E McClintock and H A Nichol “Liquid  $^4\text{He}$  and its superfluidity”, in H Arodz, J Dziarmaga and W H Zurek, ed., *Patterns of Symmetry Breaking*, vol. **127** of NATO Science Series II Mathematics, Physics and Chemistry (proceedings of the NATO Advanced Study Institute and COSLAB School, Cracow, September 2002), Kluwer, Dordrecht, 2003.
- [379] P V E McClintock and A Stefanovska, “Stochastic nonlinear dynamics of the cardiovascular system”, in Z M Arnez, C A Brebbia, F Solina and V Stankovski, ed., *Simulations in Biomedicine V* (proceedings of the 5th International Conference on Computer Simulations in Biomedicine, Ljubljana, April 2003), WIT Press, Southampton, 2003, pp 57–68.
- [380] A Bandrivskyy, D G Luchinsky, P V E McClintock, V N Smelyanskiy, A Stefanovska and D A Timucin, “Cardiovascular oscillations: in search of a nonlinear parametric model”, in S M Bezrukov, H Frauenfelder and F Moss, ed., *Fluctuations and Noise in Biological, Biophysical and Biomedical Systems* (proceedings of the conference in Santa Fe, June 2003), SPIE, Washington, 2003, pp 271–281.
- [381] A N Silchenko, S Beri, D G Luchinsky and P V E McClintock, “Escape from a chaotic attractor with fractal basin boundaries”, in L Schimansky-Geier, D Abbott, A Neiman and C Van den Broeck, ed., *Noise in Complex Systems and Stochastic Dynamics* (proceedings of the conference in Santa Fe, June 2003), SPIE, Washington, 2003, pp 102–107.
- [382] D G Luchinsky, P V E McClintock, A V Polovinkin and G V Osipov, “Stochastic excitation and synchronization in coupled FitzHugh-Nagumo elements”, in L Schimansky-Geier, D Abbott, A Neiman and C Van den Broeck, ed., *Noise in Complex Systems and Stochastic Dynamics* (proceedings of the conference in Santa Fe, June 2003), SPIE, Washington, 2003, pp 301–308.
- [383] S Beri, D G Luchinsky, A N Silchenko and P V E McClintock, “Solution of the boundary value problem for nonlinear flows and maps”, in L Schimansky-Geier, D Abbott, A Neiman and C Van den Broeck, ed., *Noise in Complex Systems and Stochastic Dynamics* (proceedings of the conference in Santa Fe, June 2003), SPIE, Washington, 2003, pp 372–382.
- [384] D G Luchinsky, P V E McClintock, A V Polovinkin, and G V Osipov, “Stochastic excitation and synchronous firing in coupled FitzHugh-Nagumo systems”, in J Sikula, ed., *Noise and Fluctuations* (proceedings of the 17th International Conference on Noise and Fluctuations in Prague, August 2003), CNRL s.r.o., Brno, Czech Republic, 2003, pp 109–113.
- [385] A N Silchenko, S Beri, D G Luchinsky and P V E McClintock, “Energy-optimal steering of transitions through a fractal basin boundary”, in *International Conference on Physics and Control*, proceedings of *PHYSICON 2003*, St Petersburg, August 2003, pp 501–506.
- [386] P S Landa and P V E McClintock, “Development of turbulence in submerged jets as a noise-induced transition”, in Z Gingl, J M Sancho, L Schimansky-Geier and J Kertesz ed., *Noise in Complex Systems and Stochastic Dynamics II* (proceedings of the conference in Maspalomas, May 2004), SPIE, Bellingham, 2004, pp79–90.
- [387] S Beri, R Mannella and P V E McClintock, “Dynamics importance sampling for the activation problem in nonequilibrium continuous systems and maps”, in Z Gingl, J M Sancho, L Schimansky-Geier and J Kertesz ed., *Noise in Complex Systems and Stochastic Dynamics II* (proceedings of the conference in Maspalomas, May 2004), SPIE, Bellingham, 2004, pp 135-144.

- [388] D G Luchinsky, P V E McClintock, A N Silchenko, V N Smelyanskiy and M I Dykman, “Modelling and controlling of stochastic dynamics of nonlinear systems”, in Z Gingl, J M Sancho, L Schimansky-Geier and J Kertesz ed., *Noise in Complex Systems and Stochastic Dynamics II* (proceedings of the conference in Maspalomas, May 2004), SPIE, Bellingham, 2004, pp 145–158.
- [389] S Beri, R Mannella, D G Luchinsky and P V E McClintock, “Polarisation switches in vertical cavity surface emitting lasers”, in P Heszler, D Abbott, J R Gea-Banacloche and P R Hemmer ed. *Fluctuations and Noise in Photonics and Quantum Optics II* (proceedings of the conference in Maspalomas, May 2004), SPIE, Bellingham, 2004, pp 133–141.
- [390] P V E McClintock and A Stefanovska, “Stochastic dynamics of the cardiovascular system”, in D Abbott, S M Bezrukov, A Der and A Sanchez ed. *Fluctuations and Noise in Biological, Biophysical and Biomedical Systems II* (proceedings of the conference in Maspalomas, May 2004), SPIE, Bellingham, 2004, pp 54–68.
- [391] A V Polovinkin, E V Pankratova, D G Luchinsky and P V E McClintock, “Resonant activation in single and coupled stochastic FitzHugh-Nagumo elements”, in D Abbott, S M Bezrukov, A Der and A Sanchez ed. *Fluctuations and Noise in Biological, Biophysical and Biomedical Systems II* (proceedings of the conference in Maspalomas, May 2004), SPIE, Bellingham, 2004, pp 192–201.
- [392] R Tindjong, A Applegate, R S Eisenberg, I Kh Kaufman, D G Luchinsky and P V E McClintock, “Ionic current through an open channel: a low-dimensional model of coupling with vibrations in the wall”, in D Abbott, S M Bezrukov, A Der and A Sanchez ed. *Fluctuations and Noise in Biological, Biophysical and Biomedical Systems II* (proceedings of the conference in Maspalomas, May 2004), SPIE, Bellingham, 2004, pp 338–344.
- [393] M Entwistle, A Bandrivskyy, B Musizza, A Stefanovska, P V E McClintock, and A Smith, “Synchronization and directionality in cardio-respiratory oscillations in anaesthesia: a preliminary observational study in human males, *Br. J. of Anaesthesia* **93**, 608P-609P (2004) (proceedings of the Anaesthetic Research Society meeting in Liverpool, July 2004).
- [394] A Bernjak, P B M Clarkson, P V E McClintock and A Stefanovska, “Nonlinear dynamics of congestive heart failure”, in N G Stocks, D Abbott, R P Morse ed. *Fluctuations and Noise in Biological, Biophysical, and Biomedical Systems III*, Proc. of SPIE **5841** (SPIE, Bellingham, WA, 2005), pp 133–138.
- [395] A Khovanov, N A Khovanova, E V Grigorieva, D G Luchinsky and P V E McClintock, “Comparison between continuous and discrete methods of dynamical control”, in L B Kish, K Lindenberg and Z Gingl ed. *Noise in Complex Systems and Stochastic Dynamics III*, Proc. of SPIE **5845** (SPIE, Bellingham, WA, 2005), pp 164–172.
- [396] G Luchinsky, V N Smelyanskiy, M Millonas and P V E McClintock, “Reconstruction of stochastic nonlinear models from trajectory measurements”, in L B Kish, K Lindenberg and Z Gingl ed. *Noise in Complex Systems and Stochastic Dynamics III*, Proc. of SPIE **5845** (SPIE, Bellingham, WA, 2005), pp 173–181.
- [397] R Tindjong, R S Eisenberg, I Kh Kaufman, D G Luchinsky and P V E McClintock, “Brownian dynamics simulations of ionic current through an open channel”, in T. González, J. Mateos and D. Pardo ed. *Noise and Fluctuations*, 18th international conference on noise and fluctuations – ICNF 2005, AIP, Melville, New York, 2005, pp 563–566.
- [398] A Bandrivskyy, M Entwistle, P V E McClintock, B Musizza, M Paluš, J Petrovčić, S Ribarič, A F Smith and A Stefanovska, “Stochastic dynamics of anaesthesia”, in L Reggiani, C Pennetta, V Akimov and M Rosini ed. *Unsolved Problems of Noise and Fluctuations: UPoN 2005*, AIP, Melville, New York, 2005, pp 553–558.
- [399] D Charalambous, P C Hendry, P V E McClintock and L Skrbek, “Quantum turbulence at very low temperatures: Status and prospects”, in *Low Temperature Physics*, ed. Y Takano, S P Hershfield, P J Hirschfeld and A M Goldman, Proc. 24th Intern. Conf. on Low Temperature Phys. (LT24) Orlando, 2005, AIP Conference Proceedings **850**, 2006, pp 187–194.
- [400] D Charalambous, P C Hendry, L Skrbek, P V E McClintock and W F Vinen, “Vibrating grid as a tool for studying the flow of pure HeII and its transition to turbulence”, in *Low Temperature Physics*, ed. Y Takano, S P Hershfield, P J Hirschfeld and A M Goldman, Proc. 24th Intern. Conf. on Low Temperature Phys. (LT24) Orlando, 2005, AIP Conference Proceedings **850**, 2006, pp 205–206.
- [401] A Y Brazhnikov, G V Kolmakov, A A Levchenko, P V E McClintock and L P Mezhov-Deglin, “Decay of capillary turbulence on the surface of a semiquantum liquid”, in *Low Temperature Physics*, ed. Y Takano, S P Hershfield, P J Hirschfeld and A M Goldman, Proc. 24th Intern. Conf. on Low Temperature Phys. (LT24) Orlando, 2005, AIP Conference Proceedings **850**, 2006, pp 211–212.
- [402] R Tindjong, D G Luchinsky, P V E McClintock, I Kaufman and R S Eisenberg, “Effect of charge fluctuations on the permeation of ions through biological ion channels”, in *Noise and Fluctuations*, eds. M Tacano, Y Yamamoto and M Takao, Proc. 19th Intern. Conf. on Noise and fluctuations, Tokyo, 2007, AIP Conference Proceedings **922**, 2007, pp 647–650.
- [403] V N Smelyanskiy, D G Luchinsky, A Duggento and P V E McClintock, “Bayesian inferential framework for diagnosis of non-stationary systems”, in S M Bezrukov ed. *Noise and Fluctuations in Biological, Biophysical and Biomedical Systems*, Proc. of conf. in Florence, 2007, SPIE Proc. **6602** (SPIE, Bellingham, WA, 2007), art. no. 66021A.

- [404] J A Gonzalez, J J Suarez-Vargas, A Stefanovska and P V E McClintock, “Fluctuations in a coupled-oscillator model of the cardiovascular system”, in S M Bezrukov ed. *Noise and Fluctuations in Biological, Biophysical and Biomedical Systems*, Proc. of conf. in Florence, 2007, SPIE Proc. **6602** (SPIE, Bellingham, WA, 2007), art. no. 66020Y.
- [405] A Bahraminasab, D Kenwright, A Stefanovska and P V E McClintock, “The cardiorespiratory interaction: a nonlinear stochastic model and its synchronization properties”, in S M Bezrukov ed. *Noise and Fluctuations in Biological, Biophysical and Biomedical Systems*, Proc. of conf. in Florence, 2007, SPIE Proc. **6602** (SPIE, Bellingham, WA, 2007), art. no. 66020X.
- [406] D G Luchinsky, R Tindjong, P V E McClintock, I Kaufman and R S Eisenberg, “On selectivity and gating of ionic channels”, in S M Bezrukov ed. *Noise and Fluctuations in Biological, Biophysical and Biomedical Systems*, Proc. of conf. in Florence, 2007, SPIE Proc. **6602** (SPIE, Bellingham, WA, 2007), art. no. 66020D.
- [407] D G Luchinsky, R Tindjong, P V E McClintock, I Kaufman and R S Eisenberg, “Self-consistent analytic solution for the current and access resistance in open ionic channels”, in S M Bezrukov ed. *Noise and Fluctuations in Biological, Biophysical and Biomedical Systems*, Proc. of conf. in Florence, 2007, SPIE Proc. **6602** (SPIE, Bellingham, WA, 2007), art. no. 66020E.
- [408] D Garcia-Alvarez, A Bahraminasab, A Stefanovska and P V E McClintock, “Modelling high-order synchronisation epochs and transitions in the cardiovascular system”, in D Abbott, T Aste, M Batchelor, R Dewar, T DiMatteo and T Guttmann eds. *Complex Systems II*, Proc. of conf. in Canberra, 2008, SPIE Proc. **6802** (SPIE, Bellingham, WA, 2008), art. no. 68020U.
- [409] V B Efimov, A N Ganshin, G V Kolmakov, P V E McClintock, and L P Mezhov-Deglin, “Wave Turbulence in Superfluid  $^4\text{He}$ : Energy Cascades and Rogue Waves in the Laboratory”, in M Robnik and V Romanovski eds. *Let’s Face Chaos Through Nonlinear Dynamics*, Proc. of 7th Intern. Summer School and Conf. in Maribor, 2008, AIP Conference Proceedings **1076**, 2008, pp 53–62.
- [410] D G Luchinsky, R Tindjong, I Kaufman, P V E McClintock, and R S Eisenberg, “Ion channels as electrostatic amplifiers of charge fluctuations”, Proc. of *Electrostatics 2007*, Oxford, March 2007, in *J. Phys: Conf. Series* **142**, 012049 (2009).
- [411] T R Charlton, R M Dalglish, A N Ganshin, O Kirichek, S Langridge, and P V E McClintock, “Neutron reflection from the surfaces of liquid  $^4\text{He}$  and a dilute  $^3\text{He}$ - $^4\text{He}$  solution”, Proc. of 25th Intern. Conf. on Low Temp. Phys. (LT25), Amsterdam, August 2008, in *J. Phys: Conf. Series* **150**, 032022 (2009).
- [412] A N Ganshin, V B Efimov, G V Kolmakov, L P Mezhov-Deglin, and P V E McClintock, “Energy cascades and rogue waves in superfluid  $^4\text{He}$ ”, Proc. of 25th Intern. Conf. on Low Temp. Phys. (LT25), Amsterdam, August 2008, in *J. Phys: Conf. Series* **150**, 032056 (2009).
- [413] V B Efimov, D Garg, O Kolosov, and P V E McClintock, “Direct measurement of the critical velocity above which a tuning fork generates turbulence in superfluid helium”, Proc. of Conf on Quantum Fluids and Solids, Northwestern University, Chicago, August 2009, in *J. Low Temp. Phys.* DOI 10.1007/s10909-009-0026-5 (2009).
- [414] S M Soskin, I A Khovanov, R Mannella, and P V E McClintock, “Enlargement of a low-dimensional stochastic web”, Proc. of 20th Intern. Conf. on Noise and Fluctuations (ICNF), Pisa, June 2009, in *Noise and Fluctuations*, eds. M Macucci and G Basso, AIP Conf. Series **1129**, 17–20 (2009).
- [415] A Duggento, D G Luchinsky, V N Smelyanskiy, M Millonas and P V E McClintock, “Applications of dynamical inference to the analysis of noisy biological time series with hidden dynamical variables”, Proc. of 20th Intern. Conf. on Noise and Fluctuations (ICNF), Pisa, June 2009, in *Noise and Fluctuations*, eds. M Macucci and G Basso, AIP Conf. Series **1129**, 531–534 (2009).
- [416] R Tindjong, D. G. Luchinsky, P V E McClintock, I. Kaufman, and R S Eisenberg, “Charge fluctuations and boundary conditions of biological ion channels: effect on the ionic transition rate”, Proc. of 20th Intern. Conf. on Noise and Fluctuations (ICNF), Pisa, June 2009, in *Noise and Fluctuations*, eds. M Macucci and G Basso, AIP Conf. Series **1129**, 535–538 (2009).
- [417] M Giltrow, D Charalambous and P V E McClintock, “Initial studies of a linear motor for generating quantum turbulence in He-II with a drawn grid”, *J. Phys. Conf. Series* **150**, Part 1, ed. P Kes and R Jochemsen, 012014 (2009).

## C. BOOKS

- [418] *Matter at Low Temperatures* (with D J Meredith and J K Wigmore), Blackie, Glasgow, 1984, pp 264; published in USA by Wiley-Interscience, New York, 1984. Japanese edition, with corrections, published by Maruzon, Tokyo, 1988. Second edition with extensive amendment, re-titled *Low Temperature Physics: An Introduction for Scientists and Engineers*, Blackie, Glasgow, 1992, pp 296.
- [419] *Noise in Nonlinear Dynamical Systems: vol 1 Theory of Continuous Fokker-Planck Systems*, pp 384; *vol 2 Theory of Noise-Induced Processes in Special Applications*, pp 416; *vol 3 Experiments and Simulations*, pp 296; ed with Frank Moss, Cambridge University Press, 1989.
- [420] *Cambridge Studies in Low Temperature Physics*, series ed with A Goldman and M Springford (1989-1999). Volumes include –

- (a) *An Introduction to Millikelvin Technology*, by D S Betts (1989).
- (b) *Magnetoresistance*, by A B Pippard (1989).
- (c) *Quantized Vortices in Helium II*, by R J Donnelly (1991).
- (d) *Excitations in a Bose-Condensed Liquid*, by A Griffin (1993).
- (e) *Photoemission Studies of High-Temperature Superconductors*, by D W Lynch and C G Olson (1999).
- [421] *Stochastic and Chaotic Dynamics in the Lakes* (proceedings of the conference in Ambleside, August 1999), ed. with D S Broomhead, E A Luchinskaya and T Mullin, American Institute of Physics, Melville, NY, 2000.
- [422] *International Workshop on Fluctuations and Superfluidity* (ISBN 1-86220-099-8), ed E A Luchinskaya, D G Luchinsky and P V E McClintock, Lancaster University, 2000.

#### D. THESES

- [423] *Experiments on Spin Phonon Interactions*, DPhil thesis, pp 165, University of Oxford (unpublished), 1966.
- [424] *Investigations of the Properties of Liquid Helium based on the Use of Positive and Negative Ions*, DSC submission, Queen's University Belfast (unpublished), 1983.

#### E. GENERAL SCIENTIFIC ARTICLES AND BOOK REVIEWS

- [425] P V E McClintock, "Vortex ring detector?"; *Nature* **240**, 75–6 (1972).
- [426] P V E McClintock, "No a.c. Josephson effect"; *Nature* **241**, 167–8 (1973).
- [427] P V E McClintock, "Building up the case"; *Nature* **242**, 14–16 (1973).
- [428] P V E McClintock, "In two dimensions"; *Nature* **243**, 120 (1973).
- [429] P V E McClintock, "Ions in liquid He-3"; *Nature* **244**, 136 (1973).
- [430] P V E McClintock, "Below one millikelvin"; *Nature* **244**, 200 (1973).
- [431] P V E McClintock, "Another sound"; *Nature* **244**, 258 (1973).
- [432] P V E McClintock, "Nuclear cooling"; *Nature* **244**, 388 (1973).
- [433] P V E McClintock, "Energetic phonons"; *Nature* **244**, 484–5 (1973).
- [434] P V E McClintock, "Superconducting bridges"; *Nature* **245**, 291–2 (1973).
- [435] P V E McClintock, "Stimulated tunnelling"; *Nature* **246**, 13–14 (1973).
- [436] P V E McClintock, "New excitation"; *Nature* **246**, 66 (1973).
- [437] P V E McClintock, "Superfluidity in thin helium films"; *Nature* **247**, 338–39 (1974).
- [438] P V E McClintock, "Superfluid He-3 confirmed"; *Nature* **248**, 194–95 (1974).
- [439] P V E McClintock, "Flowing superfluid films"; *Nature* **249**, 308–9 (1974).
- [440] P V E McClintock, "Anomalous Kapitza resistance"; *Nature* **249**, 408–9 (1974).
- [441] P V E McClintock, "Magnetic superfluid"; *Nature* **249**, 611–12 (1974).
- [442] P V E McClintock, "Two dimensional rotons"; *Nature* **249**, 694 (1974).
- [443] P V E McClintock, "Nuclear magnetic order in solid He-3"; *Nature* **249**, 800 (1974).
- [444] P V E McClintock, "Photographing a superfluid vortex"; *Nature* **251**, 189–90 (1974).
- [445] P V E McClintock, "Introduction to superfluids", review of *Superfluidity and Superconductivity* by D R Tilley and J Tilley; *Nature* **251**, 451–2 (1974).
- [446] P V E McClintock, "Pinned superfluid vortex"; *Nature* **252**, 192–93 (1974).
- [447] P V E McClintock, "Phonon transmission"; *Nature* **252**, 346 (1974).
- [448] P V E McClintock, "Superfluid He-3 at zero pressure"; *Nature* **252**, 441–42 (1974).
- [449] P V E McClintock, "Persistent superfluid flow"; *Nature* **253**, 93–94 (1975).
- [450] P V E McClintock, "High-pass phonon filter"; *Nature* **253**, 311–12 (1975).
- [451] P V E McClintock, "Textured superfluids"; *Nature* **253**, 590–91 (1975).
- [452] P V E McClintock, "Rotating superfluid film"; *Nature* **255**, 450–51 (1975).
- [453] P V E McClintock, "Ordered disorder?"; *Nature* **256**, 369 (1975).
- [454] P V E McClintock, "Mouvement de liquides sans frottement"; *La Revue Polytechnique* **7**, 629–33 (1976).
- [455] P V E McClintock, "Cryogenics", review of *Cryogenics* ed by Walter Frost; *Nature* **259**, 428 (1976).
- [456] P V E McClintock, "Cold and slippery"; *Advancement of Science* **2**, 16–17 (1976).
- [457] P V E McClintock, "Millikelvin technology", report of a Europhysics Study Conference held at the University of Lancaster, September 1976; *Nature* **264**, 117 (1976).
- [458] P V E McClintock, "Superfluid He-3: an impediment removed"; *Nature* **259**, 269–70 (1976).
- [459] P V E McClintock, "Superfluid He-3: magnetic pendula"; *Nature* **259**, 445–46 (1976).

- [460] P V E McClintock, “Mobile spaghetti”; *Nature* **260**, 484–85 (1976).
- [461] P V E McClintock, “Superfluid within superfluid”; *Nature* **260**, 668–69 (1976).
- [462] P V E McClintock, “Flow of superfluid He-3”; *Nature* **263**, 276–77 (1976).
- [463] P V E McClintock, “Pair-breaking in superfluid He-3”; *Nature* **264**, 316–17 (1976).
- [464] P V E McClintock, “Below 1K”, review of *Refrigeration and Thermometry Below One Kelvin* by D S Betts; *Nature* **264**, 489 (1976).
- [465] P V E McClintock, “Liquid and solid helium”, review of *The Physics of Liquid and Solid Helium*, Part 1, ed by K H Bennemann and J B Ketterson; *Nature* **264**, 817 (1976).
- [466] P V E McClintock, “Heat on the move”, review of *Thermal Conduction in Solids* by R Berman; *Nature* **266**, 388 (1977).
- [467] P V E McClintock, “Spin waves in superfluid He-3”; *Nature* **266**, 680–81 (1977).
- [468] P V E McClintock, “Superfluid helium: untying the tangle”; *Nature* **267**, 395–96 (1977).
- [469] P V E McClintock, “A liquid permanent magnet?”; *Nature* **270**, 559 (1977).
- [470] P V E McClintock, “Low temperature physics”, review of *The Quest for Absolute Zero: The Meaning of Low Temperature Physics* by K Mendelssohn; *Nature* **270**, 281 (1977).
- [471] D R Allum and P V E McClintock, “Atoms in contact 8: blowing smoke rings in superfluid helium”; *New Scientist* **73**, 506–8 (1977).
- [472] P V E McClintock and D R Allum, “Atoms in contact 9: breaking the superfluid speed limit”; *New Scientist* **73**, 651–3 (1977).
- [473] P V E McClintock, “A liquid permanent magnet confirmed”; *Nature* **272**, 671–72 (1978).
- [474] P V E McClintock, “Superfluid He-3 at Manchester”, report of a conference held there, April 1978; *Nature* **273**, 337 (1978).
- [475] P V E McClintock, “Ultra-cold neutrons in superfluid helium”; *Nature* **275**, 174–75 (1978).
- [476] P V E McClintock, “Incipient superfluidity in normal liquid He-3”; *Nature* **275**, 585–86 (1978).
- [477] P V E McClintock, “Will detente kill millikelvin research?”; *Nature* **276**, 117 (1978).
- [478] P V E McClintock, “A two-dimensional superfluid?”; *Nature* **276**, 120 (1978).
- [479] P V E McClintock, “Condensed state helium”, review of *The Physics of Liquid and Solid Helium*, part 2, ed by K H Bennemann and J B Ketterson; *Nature* **278**, 378 (1979).
- [480] P V E McClintock, “Techniques at low temperatures”, review of *Experimental Techniques in Low Temperature Physics* by G K White; *Nature* **279**, 826 (1979).
- [481] P V E McClintock, “New wave of superfluid He-4”; *Nature* **280**, 356–57 (1979).
- [482] P V E McClintock, “Superfluid vortex waves”; *Nature* **280**, 540–41 (1979).
- [483] P V E McClintock, “Electronic dimples explained”; *Nature* **281**, 16–17 (1979).
- [484] P V E McClintock, “Quest for superfluid hydrogen”; *Nature* **281**, 101–2 (1979).
- [485] P V E McClintock, “Atomic hydrogen stabilised”; *Nature* **284**, 510–11 (1980).
- [486] P V E McClintock, “Supercold: an introduction to low temperature technology”, review of a book of the same title by David Wilson; *Cryogenics* **20**, 291 (1980).
- [487] P V E McClintock, “Second sound in He-3”; *Nature* **290**, 359–60 (1981).
- [488] P V E McClintock, “Proceedings of ICEC8”, review of *Proceedings of the Eighth International Cryogenic Engineering Congress* ed by C Rizzuto; *Cryogenics* **21**, 314 (1981).
- [489] P V E McClintock, “A tool of elegance and great power for physicists”, reviews of *Green’s Functions and Condensed Matter* by G Rickayzen, and *Many Particle Physics* by G D Mahan; *Nature* **292**, 480 (1981).
- [490] P V E McClintock, “Crossings and reconnections in superfluid helium-4”; *Nature* **298**, 225 (1982).
- [491] P V E McClintock, “Zero momentum atoms in superfluid helium-4”; *Nature* **299**, 397 (1982).
- [492] P V E McClintock, “The peculiar liquid that’s more like a gas”; *New Scientist* **99**, 105–9 (1983).
- [493] P V E McClintock, “75 years of liquid helium-4”, report on the international conference at St Andrews; *Physics Bulletin* **34**, 422–23 (1983).
- [494] P V E McClintock, “Knudsen effects in liquid helium”; *Nature* **306**, 422–23 (1983).
- [495] P V E McClintock, “Persistent currents in liquid He-3”; *Nature* **308**, 314–15 (1984).
- [496] P V E McClintock, “Do cosmic rays account for the superfluid He-3 transition?”; *Nature* **312**, 595–96 (1984).
- [497] P V E McClintock, “Doubly-shocked helium”; *Nature* **313**, 181 (1985).
- [498] P V E McClintock, “A lesson in literacy”; review of *The Second Law* by P W Atkins; *New Scientist*, 3 January 1985, 34.

- [499] P V E McClintock, “Hot and bothered”, review of *The Theory of Thermodynamics* by J R Waldram; *Times Higher Education Supplement* (18 October 1985).
- [500] P V E McClintock, “One man and his cycle”, review of *Reflexions on the Motive Power of Fire* by Robert Fox; *New Scientist* **111**, 58 (1986).
- [501] P V E McClintock, “Taking the heat off”, review of *Thermal Physics* by C B P Finn; *Times Higher Education Supplement* (24 October 1986).
- [502] P V E McClintock, “Pauli principle in a gas”; *Nature* **323**, 756–57 (1986).
- [503] P V E McClintock, “Heated debate”, review of *Principles of Thermodynamics and Statistical Mechanics* by D F Lawden; *Times Higher Education Supplement* (6 March 1987).
- [504] P V E McClintock, “Vortex production in helium”; *Nature* **325**, 387–88 (1987).
- [505] P V E McClintock, “Science of helium in technology”, review of *Helium Cryogenics* by Steven W Van Sciver; *Nature* **326**, 340 (1987).
- [506] P V E McClintock, “By any other name”, review of *Dictionary of Effects and Phenomena in Physics* by Joachim Schubert; *Nature* **330**, 530 (1987).
- [507] P V E McClintock, “An introduction to liquid helium”, review of a book of the same title by J Wilks and D S Betts; *Contemporary Phys.* **28**, 503–4 (1987).
- [508] P V E McClintock and F E Moss, “Stochastic dynamics of nonlinear systems”; *SERC Bulletin* **3** 12–13 (1987).
- [509] P V E McClintock, “Cryogenics”; in *Encyclopaedia of Physical Science and Technology*, ed Robert A Meyers, Academic Press, San Diego, 1987, vol III, p 825–847.
- [510] P V E McClintock, “Superfluidity of He-3 films”; *Nature* **332**, 307 (1988).
- [511] P V E McClintock, “Progress in low temperature physics”, review of volume XI of a series of the same title, ed by D F Brewer; *Contemporary Phys.* **29**, 194–195 (1988).
- [512] P V E McClintock, “Keeping track”, review of *Classical Equilibrium Statistical Mechanics* by Colin J Thompson; *Times Higher Education Supplement* (14 October 1988).
- [513] P V E McClintock, “Viscosity of  $^3\text{He}$ - $^4\text{He}$  solutions”, *Nature* **337**, 16–17 (1989).
- [514] P V E McClintock, “On the practical side”, review of *Experimental Physics: Modern Methods* by R A Dunlap; *Nature* **338**, 177 (1989).
- [515] P V E McClintock, “In pursuit of the peculiar”, review of *Methodological Aspects of the Development of Low Temperature Physics 1881-1956: Concepts out of Context(s)* by Kostas Gavroglu and Yorgas Goudaroulis; *Nature* **338**, 549–550 (1989).
- [516] Schleich and P V E McClintock, “Humpty Dumpty to Moslem art”; *Nature* **339**, 257–258 (1989).
- [517] P V E McClintock, “Magnetism of layered helium-3”; *Nature* **340**, 98–99 (1989).
- [518] P V E McClintock, “In the family”, review of *Near Zero: New Frontiers of Physics* ed J D Fairbank, B S Deaver Jr, C W F Everitt and P F Michelson; *Nature* **341**, 116–117 (1989).
- [519] P V E McClintock, “Mirror images”, review of *Reflections on Liquid Helium* by E L Andronikashvili; *Nature* **345**, 396 (1990).
- [520] P V E McClintock, “Rotons put physics in a whirl”; *Nature* **347**, 233–234 (1990).
- [521] P V E McClintock, “Frictionless flow”, review of *The Superfluid Phases of Helium-3* by Dieter Vollhardt and Peter Wölfle; *Times Higher Education Supplement* (1 March 1991).
- [522] P V E McClintock, “Superfluid speed limits”, *Phys. World* **4**, 36–40 (July 1991).
- [523] P V E McClintock, “The theory of quantum fluids, vol II”, review of a book of the same title by P Nozieres and D Pines, *Contemporary Phys.* **32**, 354–355 (1991).
- [524] P V E McClintock, “Slowly unwinding in  $^3\text{He}$ ”, *Nature* **356**, 749–750 (1992).
- [525] P V E McClintock, “Superfluid neutrino detection”, *Phys. World* **5**, 20 (August 1992).
- [526] P V E McClintock, “Macroscopic theories of superfluids”, review of a book of the same title, ed G Grioli; *Contemporary Phys.* **33**, 149–150 (1992).
- [527] P V E McClintock, “Cryogenics”, in *Encyclopaedia of Physical Science and Technology*, 2nd edn, ed. Robert A Meyers, Academic Press, San Diego, 1992, vol IV, pp 663–686.
- [528] P V E McClintock, “Vortex reconnections unravelled”, *Phys. World* **6**, 21–22 (December 1993).
- [529] P V E McClintock, “Harry Rosenberg”, *The Independent*, Obituaries page, 27 December 1993.
- [530] P V E McClintock, “Chaos for beginners”, Essay Review of *Encounter with Chaos* by J Peinke, J Parisi, O E Rossler and R Stoop and *A First Course in Chaotic Dynamical Systems: Theory and Experiment* by R L Devaney; *Contemporary Phys.* **34**, 213–214 (1993).
- [531] P V E McClintock, “Chance and Chaos”, review of a book of the same title by D Ruelle; *Contemporary Phys.* **35** 124–125 (1994).

- [532] P V E McClintock, “Superfluidity in liquid hydrogen?”, *Phys. World* **8**, 23 (January 1995).
- [533] P V E McClintock, “More anomalies in liquid hydrogen”, *Phys. World* **8**, 30 (February 1995).
- [534] P V E McClintock, “Low-capacity cryogenic refrigeration”, review of a book of the same title by G Walker and E R Bingham, *Contemporary Phys.* **36**, 130 (1995).
- [535] P V E McClintock, “Big bangs in liquid helium”, *Phys. World.* **9**, 21–22 (September 1996).
- [536] P V E McClintock, “Igor Hajek”, *The Independent*, Obituaries page, 1 May 1995.
- [537] P V E McClintock, “Superfluids – Exploding electron bubbles”, *Nature* **383**, 764–765 (1996).
- [538] P V E McClintock, “Quantum fluid”, in *Macmillan Encyclopedia of Physics*, ed. J S Rigden, Simon and Schuster Macmillan, New York, 1996, vol. 3, pp 1273–1275.
- [539] P V E McClintock, “Quantum mechanics – Whistles from superfluid helium”, *Nature* **388**, 421–422 (1997).
- [540] P V E McClintock, “Entropy and its physical meaning”, review of a book of the same title by J S Dugdale, *Contemporary Phys.* **38**, 435–436 (1997).
- [541] P V E McClintock, C J Lambert and A J McKane, “Nonlinear mathematics of large fluctuations”, *Research Highlights of the ANM Programme*, ed. G Richards, EPSRC, Swindon, 1997, pp 19–21.
- [542] P V E McClintock, “Puzzles of evolution”, essay review based on *Figments of Reality: the Evolution of the Curious Mind* by Ian Stewart and Jack Cohen, *Contemporary Phys.* **40**, 71–72 (1999).
- [543] P V E McClintock and D G Luchinsky, “Glorious noise”, *New Scientist* **161**, No. 2168, 36–39 (9 January 1999).
- [544] P V E McClintock, “Random fluctuations – Unsolved problems of noise”, *Nature* **401**, 23–24 (1999).
- [545] P V E McClintock, “Liquid hydrogen turns superfluid”, *Phys. World.* **13**, 23–24 (November 2000).
- [546] P V E McClintock, “Jack Allen 1908–2001”, obituary of Professor J F Allen FRS, *Phys. World.* **14**, No. 6, 12 (June 2001).
- [547] P V E McClintock, “Dip in and feel enriched”, review of *Superstrings and Other Things: a Guide to Physics* by Carlos Calle, *Phys. World.* **14**, No. 12, 47 (December 2001).
- [548] P V E McClintock, “Can noise actually boost brain power?”, *Phys. World.* **15**, No. 7, 20–21 (July 2002).
- [549] P V E McClintock, “Cryogenics”, in *Encyclopaedia of Physical Science and Technology*, 3rd edn, ed. Robert A Meyers, Academic Press, San Diego, 2002, vol IV, pp 37–59.
- [550] P V E McClintock, “Exploding excited electron bubbles”, *Phys. World.* **16**, No. 4, 21–22 (April 2003).
- [551] P V E McClintock, “Synchronization: A Universal Concept in the Physical Sciences”, review of a book of the same title by A Pikovsky, M Rosenblum and J Kurths (Cambridge University Press, Cambridge, 2001), *Contemporary Phys.* **44**, 185–186 (2003).
- [552] P V E McClintock, “Fundamentals of Equations of State”, review of a book of the same title by Y Eliezer, A Ghatak and H Hora (World Scientific, Singapore, 2002), *Contemporary Phys.* **44**, 275 (2003).
- [553] P V E McClintock, “The Universe in a Helium Droplet”, review of a book of the same title by G E Volovik (Oxford University Press, 2003), *Contemporary Phys.* **45**, 187–188 (2004).
- [554] P V E McClintock, “Magical helium clusters”, *Phys. World.* **17**, No. 7, 18–19 (July 2004).
- [555] P V E McClintock, “Biological Physics of the Developing Embryo”, review of a book of the same title by C Forgacs and S A Newman (Cambridge University Press, Cambridge, 2005), *Contemporary Phys.* **47**, 232 (2006).
- [556] P V E McClintock, “Ludwig Boltzmann: The Man Who Trusted Atoms”, review of a book of the same title by C Cercignani (Oxford University Press, Oxford, 2005), *Contemporary Phys.* **47**, 234 (2006).
- [557] P V E McClintock, “Pattern Formation: An Introduction to Methods”, review of a book of the same title by R Hoyle (Cambridge University Press, Cambridge, 2006), *Contemporary Phys.* **47**, 235 (2006).
- [558] P V E McClintock, “Physics of Solitons”, review of a book of the same title by T Dauxois and M Peyrard (Cambridge University Press, Cambridge, 2006), *Contemporary Phys.* **47**, 235–236 (2006).
- [559] P V E McClintock, “The Structure and Properties of Water”, review of a book of the same title by D Eisenberg and W Kauzmann (Oxford University Press, Oxford, 2005), *Contemporary Phys.* **47**, 237–238 (2006).
- [560] P V E McClintock, “Why does a Ball Bounce?”, review of a book of the same title by A Hart-Davis (Ebury Press, London, 2005), *Contemporary Phys.* **47**, 238 (2006).
- [561] P V E McClintock, “The background buzz”, review of *Noise* by B Kosko (Penguin, New York, 2006), *Nature* **443**, 635–636 (2006).
- [562] A Stefanovska and P V E McClintock, “The BRACCIA Project: towards a new generation of depth-of-anaesthesia monitors”, *International Hospital Equipment and Solutions (Anaesthesiology Special)* **33**(3), 14 (2007).
- [563] P V E McClintock, “Experimental Techniques for Low Temperature Measurements”, review of a book of the same title by J W Ekin (Oxford University Press, Oxford, 2006) *Contemporary Phys.* **49**, 228–229 (2008).

- [564] P V E McClintock, “Ions and Electrons in Liquid Helium”, review of a book of the same title by A F Borghesani (Oxford University Press, Oxford, 2007) *Contemporary Phys.* **49**, 302–303 (2008).
- [565] P V E McClintock, “Mars: an Introduction to its Interior, Surface and Atmosphere”, review of a book of the same title by N G Barlow (Cambridge University Press, Cambridge, 2008) *Contemporary Phys.* **49**, 303–304. (2008).
- [566] P V E McClintock, “Phase Resetting in Medicine and Biology”, review of a book of the same title by P A Tass (Springer, Berlin, 2007) *Contemporary Phys.* **49**, 306 (2008).
- [567] P V E McClintock, “Human Vision and the Night Sky: How to Improve your Observing Skills”, review of a book of the same title by M P Borgia (Springer, Berlin, 2007) *Contemporary Phys.* **49**, 383–384 (2008).
- [568] P V E McClintock, “The Josephson effects (1969) by B W Petley”, invited commentary on Petley’s classic paper, *Contemporary Phys.* **50**, 69 (2009).
- [569] P V E McClintock, “A Modern Approach to Critical Phenomena”, review of a book of the same title by I Herbut (Cambridge University Press, 2007) *Contemporary Phys.* **50**, 483–484 (2009).
- [570] P V E McClintock, “Lonely Minds in the Universe”, review of a book of the same title by G Genta (Copernicus Books, New York, 2007) *Contemporary Phys.* **50**, 487–489 (2009).
- [571] P V E McClintock, “The Coming Convergence: Surprising Ways Diverse Technologies Interact to Shape our World and Change our Future”, review of a book of the same title by S Schmidt (Prometheus Books, Amherst NY, 2008) *Contemporary Phys.* **50**, 492–493 (2009).
- [572] P V E McClintock, “Chaos and Coarse Graining in Statistical Mechanics”, review of a book of the same title by P Castiglione, M Falcione, A Lesne and A Vulpiani, *Contemporary Phys.* **51**, 186–187 (2010).
- [573] P V E McClintock, “Missing data in longitudinal studies: Strategies for Bayesian modeling and sensitivity studies”, review of a book of the same title by M J Daniels and J W Hogan, *Contemporary Phys.* **51**, 188–189 (2010).
- [574] P V E McClintock, “Cosmic perspectives”, review of a book of the same title by S K Biswas, D C V Mallik and C V Vishveshwara, *Contemporary Phys.* **51**, 287 (2010).
- [575] P V E McClintock, “Sirius matters”, review of a book of the same title by N Brosch, *Contemporary Phys.* **51**, 464–465 (2010).
- [576] P V E McClintock, “Dynamics of Self-Organized and Self-Assembled Structures”, review of a book of the same title by R C Desai and R Kapral (Cambridge University Press, Cambridge, 2009), *Contemporary Phys.* **51**, 551–552 (2010).
- [577] P V E McClintock, “Engineering the Guitar: Theory and Practice”, review of a book of the same title by R M French (Springer, New York, 2009), *Contemporary Phys.* **51**, 560–561 (2010).
- [578] P V E McClintock, “Planetary Systems: Detection, Formation and Habitability of Extrasolar Planets”, review of a book of the same title by M Ollivier, T Encrenaz, F Roques, F Selsis and F Casoli (Springer, Berlin, 2009), *Contemporary Phys.* **51**, 561–562 (2010).
- [579] P V E McClintock, “Quantum aspects of life”, essay review of a book of the same title edited by D. Abbott, P.C.W. Davies and A.K. Pati (Imperial College Press, London, 2008), *Contemporary Phys.* **52**, 71–73 (2011).
- [580] P V E McClintock, “The Universe - Order Without Design”, review of a book of the same title by Carlos I. Calle (Prometheus Books, 2009, Amherst, NY), *Contemporary Phys.* **52**, 82–83 (2011).
- [581] P V E McClintock, “Ultracold Quantum Fields”, review of a book of the same title by H.T.C. Stoof, K.B. Gubbels and D.B.M. Dickerscheid (Springer, Dordrecht, 2009), *Contemporary Phys.* **52**, 159 (2011).
- [582] P V E McClintock, “Experimental and Computational Techniques in Soft Condensed Matter Physics”, review of a book of the same title ed. by Jeffrey Olafsen (Cambridge University Press, Cambridge, 2010), *Contemporary Phys.* **52** 486 (2011).
- [583] P V E McClintock, “Revolutions That Made the Earth”, essay review of a book of the same title by T. Lenton and A. Watson (Oxford University Press, Oxford, 2011), *Contemporary Phys.* **52** 591–593 (2011).