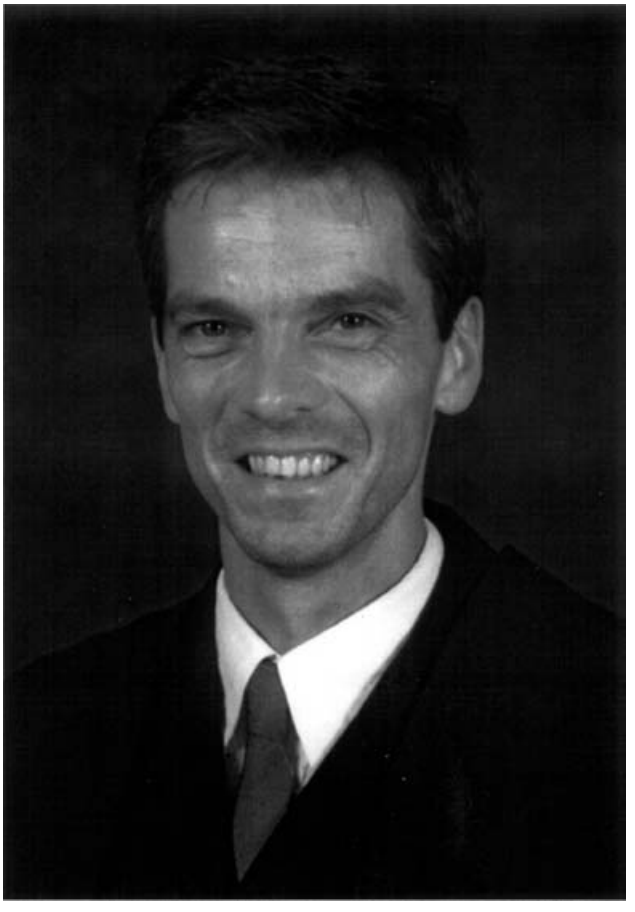
Glasgow Math. J. **46** (2004) 601–614.
DOI: 10.1017/S0017089504002022. Printed in the United Kingdom

OBITUARY



WERNER SIEGFRIED WEIGLHOFER
(1962–2003)

Professor Werner Weiglhofer of the Department of Mathematics, University of Glasgow died on Sunday January 12, 2003, aged 40. He was struck down by an avalanche while snow-shoeing alone on the slopes of Bispen, in the Trollstigen area of Norway, about 350 kilometers northwest of Oslo. The alarm was sounded later that day when he failed to return as expected. A search and rescue team found his body the next day, the day he had been scheduled to fly back to Glasgow. He had been on a week's holiday to an area he knew very well, prior to the beginning of term.

Born on 25 August 1962 in Bruck an der Mur, Steiermark, Austria, Werner obtained a doctorate in technical sciences from the Technical University of Graz in 1986. A prestigious Australian-European Fellowship then took him to the University of Adelaide. In 1988 he joined the Department of Mathematics, University of Glasgow

as a research assistant, to work on problems related to the stability of the Earth's magnetic field.

At the end of his postdoc, Werner was successful in being appointed to a Lectureship in Applied Mathematics in Glasgow. Freed from the constraints of a research project, he quickly developed as an independent researcher, returning to the field he had learned as a postgraduate student; electromagnetics of complex materials. He developed a collaboration and very close friendship with Professor Akhlesh Lakhtakia of the Pennsylvania State University. The collaboration was extraordinarily productive and Lakhtakia & Weiglhofer papers became a very prominent feature of the Department of Mathematics preprint list. Werner's growing status was recognised through promotion to Senior Lecturer, to Reader and finally to Professor of Applied Mathematics in August 2002, in recognition of his internationally leading research role in the field of electromagnetic theory of complex materials. This is an area that has potential for significant technical applications. Werner was energetic in developing the mathematical methods and theoretical apparatus that is necessary to analyse, understand and eventually exploit novel electromagnetic effects in complex materials.

Werner was extremely active in pursuing his research as well as promoting his field, and was meticulously organised in all he did. During his short career, he authored or co-authored 135 research publications in peer-reviewed international journals. His work was marked by an elegance that was spartan in style and extensive in scope. He was actively involved with conference organisation, including the very successful Bianisotropics 97, held in Glasgow. He raised money from several sources to fund the meeting and was keen that the participants gained a good impression of Glasgow and Scotland. He served on the editorial boards of the journals *Electromagnetics* and *Archiv für Elektronik und Uebertrangungstechnik* and was a prolific reviewer for over 30 different international journals. He won a number of awards to support his research including an SOEID/RSE Support Research Fellowship that allowed him to focus on his research for the year 2000.

I had the sad task of visiting Werner's office to look for lecture notes to pass on to those who were to take on his duties. The notes were clearly arranged, with corresponding files easily found on his computer. An important work in progress was the editing (jointly with Lakhtakia) of a pedagogical volume *Introduction to Complex Mediums for Optics and Electromagnetics* (SPIE, 2003). Again all the paperwork was neatly filed and electronic versions completely up to date. The editing was completed by Lakhtakia and the published volume contains several tributes to Werner by those who knew him well.

While dedicated to his research, Werner was also an enthusiastic teacher. He co-authored an undergraduate textbook on ordinary differential equations, and was leading a review of the place of this important topic in the mathematics syllabus. He spent many hours devising numerous projects in applied mathematics for his students and planned to publish a collection of these to show that mathematics is not only a thing of beauty but eminently useful too. In his memory the Department of Mathematics, University of Glasgow has set up a fund that awards an annual prize, in his name, for the best project.

His enthusiasm for publication was not limited to his scientific work. His extensive postdoctoral travels motivated several articles, including one on Glasgow, that were published by local newspapers in Bruck an der Mur and Graz. More recently he was motivated to write to local and national newspapers on a number of issues.

The pre-eminent love of Werner's life was mountains. He hiked, he skied, he snow-shoed, he photographed, read and wrote about them. The close proximity of the Highlands to Glasgow was one factor in attracting him here in 1988, and it took only four years for him to bag all the Munros (Scottish mountains over 3000 ft), many of which he has since conquered several times. Latterly he was set on adding the Munro Tops and the Corbetts (Scottish mountains between 2500 ft and 3000 ft) to his remarkable list of achievements. He kept very detailed records and diaries of all his hikes. Most of these were made alone but there are several friends for whom he has shifted down a gear or so to accompany up a Munro. Vacation time took him to Norway, and in 1991 he discovered the peaks of Romsdal, Norway. He describes this chance encounter in his guide to the peaks, see `http://www.maths.gla.ac.uk/~wsw/romsdal/`.

He was never happier than when surrounded by snow above clouds, which is where he left his parents, his colleagues, numerous friends, students and admirers.

ACKNOWLEDGEMENTS. The list of publications was kindly supplied by Werner's only PhD student Dr Tom Mackay of the University of Edinburgh. It was first published in Weiglhofer and Lakhtakia, *Introduction to Complex Mediums for Optics and Electromagnetics*, SPIE Press, pp. 731–748 (2003), and is reproduced, with corrections, with their permission.

David R. Fearn

PUBLICATIONS

1. Books

1. W. S. Weiglhofer (ed), *Proceedings of Bianisotropics'97, International conference and workshop on electromagnetics of complex media*, Glasgow, Great Britain, 1997.

2. W. S. Weiglhofer and K. A. Lindsay, *Ordinary differential equations & applications: mathematical methods for applied mathematicians, physicists, engineers, bioscientists*, Horwood Publishing Limited, Chichester, England, 1999.

3. A. Lakhtakia, W. S. Weiglhofer and R. Messier (eds), *Complex mediums*, *SPIE International symposium on optical science, engineering, and instrumentation*, San Diego, California, USA, volume 4097, 2000.

4. A. Lakhtakia, W. S. Weiglhofer and I. J. Hodgkinson (eds), *Complex mediums II: beyond linear isotropic dielectrics*, *SPIE International symposium on optical science and technology*, San Diego, California, USA, volume 4467, 2001.

5. W. S. Weiglhofer and A. Lakhtakia, (eds) *Introduction to complex mediums for optics and electromagnetics*, SPIE Press, Bellingham, WA, 2003.

2. Book Chapters

1. W. S. Weiglhofer, Frequency–dependent dyadic Green functions for bianisotropic media, *Advanced electromagnetism: foundations, theory, applications* (T. W. Barrett and D. M. Grimes, eds), World Scientific, Singapore, 1995.

2. W. S. Weiglhofer, Scalar Hertz potentials for linear bianisotropic mediums, *Electromagnetic fields in unconventional materials and structures* (O. N. Singh and A. Lakhtakia, eds), Wiley, New York, 2000.

3. W. S. Weiglhofer, A flavour of constitutive relations: The linear regime, *Advances in electromagnetics of complex media and metamaterials* (S. Zouhdi, A. Sihvola and M. Arsalane, eds), Kluwer, Dordrecht, 2003.

4. T. G. Mackay and W. S. Weiglhofer, A review of homogenization studies for biaxial bianisotropic materials, *Advances in electromagnetics of complex media and metamaterials* (S. Zouhdi, A. Sihvola and M. Arsalane, eds), Kluwer, Dordrecht, 2003.

5. W. S. Weiglhofer, Constitutive characterization of simple and complex mediums, *Introduction to complex mediums for optics and electromagnetics* (W. S. Weiglhofer and A. Lakhtakia, eds), SPIE Press, Bellingham, WA, 2003.

6. A. Lakhtakia, M. W. McCall and W. S. Weiglhofer, Negative phase–velocity mediums, *Introduction to complex mediums for optics and electromagnetics* (W. S. Weiglhofer and A. Lakhtakia, eds), SPIE Press, Bellingham, WA, 2003.

3. Guest Journal Editorials

1. W. S. Weiglhofer, A perspective of bianisotropy and Bianisotropics'97, *Int J Appl Electromag Mech* **9** (1998), 93–101.

2. W. S. Weiglhofer, Introduction to special issue: Mathematical techniques in electromagnetics of complex mediums, *Electromagnetics* **19** (1999), 475–478.

3. W. S. Weiglhofer, A. M. Barbosa and A. L. Topa, Special issue of Bianisotropics 2000: Guest editorial, *Arch Elektr Übertr* **55** (2001), 209–210.

4. Refereed Journal Articles

1. W. Weiglhofer and W. Papousek, Skalare Hertz'sche Potentiale für anisotrope Medien, *Arch Elektr Übertr* **39** (1985), 343–346.

2. W. Weiglhofer and W. Papousek, Scalar Hertz potentials for transversally oriented current density distributions in gyrotropic media, *Arch Elektr Übertr* **41** (1987), 41–45.

3. W. Weiglhofer, Reduction of dyadic Green's functions to scalar Hertz potentials for gyrotropic media, *Radio Sci* **22** (1987), 209–215.

4. W. Weiglhofer, Scalarization of Maxwell's equations in general inhomogeneous bianisotropic media, *IEE Proc Microw, Antennas Propagat* **134** (1987), 357–360.

5. W. Weiglhofer, On scalar superpotentials for inhomogeneous gyrotropic media, *Arch Elektr Übertr* **41** (1987), 371–372.

6. W. Weiglhofer, Field representation in gyrotropic media by one scalar superpotential, *IEEE Trans Antennas Propagat* **35** (1987), 1301–1302.

7. W. Weiglhofer, A formal time–domain approach to cold magnetized plasmas, *Austral J Phys* **41** (1988), 55–62.

8. W. S. Weiglhofer, Isotropic chiral media and scalar Hertz potentials, *J Phys A: Math Gen* **21** (1988), 2249–2251.

9. W. Weiglhofer, Symbolic derivation of the electrodynamic Green's tensor in an anisotropic medium, *Am J Phys* **56** (1988), 1095–1097.

10. W. S. Weiglhofer, A simple and straightforward derivation of the dyadic Green's function of an isotropic chiral medium, *Arch Elektr Übertr* **43** (1989), 51–52.[1]

11. W. Weiglhofer, Delta–function identities and electromagnetic field singularities, *Am J Phys* **57** (1989), 455–456.

12. W. S. Weiglhofer, Dyadic Green's functions for general uniaxial media, *IEE Proc Microw, Antennas Propagat* **137** (1990), 5–10.

13. W. S. Weiglhofer, Electromagnetic field representation in (inhomogeneous) isotropic chiral media, *Electromagnetics* **10** (1990), 271–278.

14. D. R. Fearn and W. S. Weiglhofer, Magnetic instabilities in rapidly rotating spherical geometries I. From cylinders to spheres, *Geophys Astrophys Fluid Dyn* **56** (1991), 159–181.

15. W. S. Weiglhofer, A note on the inversion of the dyadic operator $\nabla \times \nabla \times \mathbf{I} - a^2\,\mathbf{I} - b\,\nabla \times \mathbf{I}$, *J Electromag Waves Appl* **5** (1991), 953–958.

16. D. R. Fearn and W. S. Weiglhofer, Magnetic instabilities in rapidly rotating spherical geometries II. More realistic fields and resistive instabilities, *Geophys Astrophys Fluid Dyn* **60** (1991), 275–294.

[1]Reprinted in *Natural optical activity* (A. Lakhtakia, ed), SPIE Milestone Series **MS15**, SPIE Optical Engineering Press, Bellingham, WA, USA, 1990.

17. D. R. Fearn and W. S. Weiglhofer, Resistive instabilities and the magnetostrophic approximation, *Geophys Astrophys Fluid Dyn* **63**, 111–138, 1992.

18. A. Lakhtakia and W. S. Weiglhofer, Scattering by an electrically small bianisotropic sphere in a gyroelectromagnetic uniaxial medium, *IEE Proc Microw, Antennas Propagat* **139** (1992), 217–220.

19. W. S. Weiglhofer, Green's functions and magnetized ferrites, *Int J Electron* **73** (1992), 763–771.

20. D. R. Fearn and W. S. Weiglhofer, Magnetic instabilities in rapidly rotating spherical geometries III. The effect of differential rotation, *Geophys Astrophys Fluid Dyn* **67** (1992), 163–184.

21. A. Lakhtakia and W. S. Weiglhofer, Maxwell–Garnett estimates of the effective properties of a general class of discrete random composites, *Acta Crystallographica* **A49** (1993), 266–269.[2]

22. W. S. Weiglhofer, Dipole radiation in uniaxial bianisotropic medium, *Elect Lett* **29** (1993), 844–845.

23. W. S. Weiglhofer, A dyadic Green's functions representation for electrically gyrotropic media, *Arch Elektr Übertr* **47** (1993), 125–129.

24. W. S. Weiglhofer, A. Lakhtakia and J. C. Monzon, Maxwell Garnett model for composites of electrically small uniaxial objects, *Microw Opt Technol Lett* **6** (1993), 681–684.

25. A. Lakhtakia and W. S. Weiglhofer, Axial propagation in general helicoidal bianisotropic media, *Microw Opt Technol Lett* **6** (1993), 804–806.

26. W. S. Weiglhofer, Analytic methods and free–space dyadic Green's functions, *Radio Sci* **28** (1993), 847–857.

27. A. Lakhtakia and W. S. Weiglhofer, Axial propagation in a magnetic–dielectric cholesteric medium, *Liquid Crystals* **15** (1993), 659–667.

28. W. S. Weiglhofer and A. Lakhtakia, Electromagnetic wave propagation in super–cholesteric materials parallel to the helical axis, *J Phys D: Appl Phys* **26** (1993), 2117–2122.[3]

29. W. S. Weiglhofer and I. V. Lindell, Analytic solution for the dyadic Green function of a nonreciprocal uniaxial bianisotropic medium, *Arch Elektr Übertr* **48** (1994), 116–119.

30. W. S. Weiglhofer and I. V. Lindell, Fields and potentials in general uniaxial bianisotropic media I. Axial sources, *Int J Appl Electromag Mat* **4** (1994), 211–220.

31. W. S. Weiglhofer and A. Lakhtakia, Time–dependent scalar Beltrami–Hertz potentials in free space, *Int J Infrared Millim Waves* **15** (1994), 1015–1026.

32. W. S. Weiglhofer and A. Lakhtakia, Wave propagation in a continuously twisted biaxial dielectric medium parallel to the helical axis, *Optik* **96** (1994), 179–183.

33. W. S. Weiglhofer and A. Lakhtakia, Time–dependent Beltrami fields in free space: Dyadic Green functions and radiation potentials, *Phys Rev E* **49** (1994), 5722–5725.

34. I. V. Lindell and W. S. Weiglhofer, Green dyadic and dipole fields for a medium with anisotropic chirality, *IEE Proc Microw, Antennas Propagat* **141** (1994), 211–215.

35. I. V. Lindell and W. S. Weiglhofer, Green dyadic for a uniaxial bianisotropic medium, *IEEE Trans Antennas Propagat* **42** (1994), 1013–1016.

36. W. S. Weiglhofer, Dyadic Green functions for unbounded general uniaxial bianisotropic media, *Int J Electron* **77** (1994), 105–115.

37. A. Lakhtakia and W. S. Weiglhofer, Are linear, nonreciprocal, biisotropic media forbidden?, *IEEE Trans Microw Theory Tech* **42** (1994), 1715–1716.

38. A. Lakhtakia and W. S. Weiglhofer, Time–harmonic electromagnetic fields in source regions in a simple uniaxial bianisotropic medium, *Int J Appl Electromag Mat* **5** (1994), 101–108.

39. A. Lakhtakia and W. S. Weiglhofer, Influence of pitch on attenuation and handedness of axial propagation modes in helicoidal bianisotropic mediums, *Opt Commun* **111** (1994), 199–202; erratum: **113** (1995), 570.

40. W. S. Weiglhofer and A. Lakhtakia, Uniformity constraint on recently conceptualized linear uniaxial bianisotropic media, *Elect Lett* **30** (1994), 1656–1657.

[2]Reprinted in *Selected papers on linear optical composite materials* (A. Lakhtakia, ed), SPIE Milestone Series **MS120**, SPIE Optical Engineering Press, Bellingham, WA, USA, 1996.

[3]Reprinted in *Selected papers on linear optical composite materials* (A. Lakhtakia, ed), SPIE Milestone Series **MS120**, SPIE Optical Engineering Press, Bellingham, WA, USA, 1996.

41. W. S. Weiglhofer, Dielectric polarizability of a sphere with arbitrary anisotropy: comment, *Opt Lett* **19** (1994), 1663.

42. W. S. Weiglhofer and A. Lakhtakia, Towards the generalized super–cholesteric material I. Construction and axial wave propagation, *Arch Elektr Übertr* **48** (1994), 339–343.

43. W. S. Weiglhofer, On a medium constraint arising directly from Maxwell's equations, *J Phys A: Math Gen* **27** (1994), L871–L874.

44. A. Lakhtakia and W. S. Weiglhofer, Constraint on linear, homogeneous constitutive relations, *Phys Rev E* **50** (1994), 5017–5019.

45. A. Lakhtakia and W. S. Weiglhofer, On light propagation in helicoidal bianisotropic mediums, *Proc Royal Soc London A* **448** (1995), 419–437; erratum: **454** (1998), 3275.

46. W. S. Weiglhofer and A. Lakhtakia, On singularities of dyadic Green functions and long–wavelength scattering, *Electromagnetics* **15** (1995), 209–221.

47. A. Lakhtakia and W. S. Weiglhofer, Covariances and invariances of the Beltrami–Maxwell postulates, *Proc IEE A, Science Measure Tech* **142** (1995), 262–266.

48. W. S. Weiglhofer and A. Lakhtakia, A brief review of a new development for constitutive relations of linear bi–anisotropic media, *IEEE Antennas Propagat Mag* **37** (1995), 32–35.

49. A. Lakhtakia and W. S. Weiglhofer, On a constraint on the electromagnetic constitutive relations of nonhomogeneous linear media, *IMA J Appl Math* **54** (1995), 301–306.

50. W. S. Weiglhofer, One–dimensional dyadic Green functions for general linear bianisotropic media, *J Electromag Waves Appl* **9** (1995), 1421–1432.

51. W. S. Weiglhofer and A. Lakhtakia, Dyadic Green functions for axially varying fields in helicoidal bianisotropic media, *Int J Appl Electromag Mech* **6** (1995), 221–234.

52. A. Lakhtakia and W. S. Weiglhofer, Comment on 'Are nonreciprocal bi–isotropic media forbidden indeed?', *IEEE Trans Microw Theory Tech* **43** (1995), 2722–2723.

53. W. S. Weiglhofer and A. Lakhtakia, Causality and natural optical activity (chirality), *J Opt Soc Am A* **13** (1996), 385–386.

54. W. S. Weiglhofer and A. Lakhtakia, Perturbational solution for propagation in periodically bent nematic liquid crystals and thin films, *Microw Opt Technol Lett* **11** (1996), 320–323.

55. A. Lakhtakia and W. S. Weiglhofer, Dilute nonlinear particulate composites comprised by linear bianisotropic inclusions in nonlinear dielectric host media, *Opt Eng* **35** (1996), 1112–1118.

56. A. Lakhtakia and W. S. Weiglhofer, Lorentz covariance, Occam's razor, and a constraint on linear constitutive relations, *Phys Lett A* **213** (1996), 107–111; erratum: **222** (1996), 459.

57. W. S. Weiglhofer and A. Lakhtakia, Oblique propagation in a cholesteric liquid crystal: 4×4 matrix perturbational solution, *Optik* **101** (1996), 111–114.

58. A. Lakhtakia and W. S. Weiglhofer, Maxwell Garnett approach for nonlinear dilute particulate composites with bi–isotropic host media, *Int J Electron* **80** (1996), 665–676.

59. W. S. Weiglhofer, Fields and potentials in general uniaxial bianisotropic media II. General sources and inhomogeneities, *Int J Appl Electromag Mech* **7** (1996), 1–9.

60. A. Lakhtakia and W. S. Weiglhofer, Simple and exact analytic solution for oblique propagation in a cholesteric liquid crystal, *Microw Opt Technol Lett* **12** (1996), 245–248.

61. W. S. Weiglhofer and A. Lakhtakia, New expressions for depolarization dyadics in uniaxial dielectric–magnetic media, *Int J Infrared Millim Waves* **17** (1996), 1365–1376.

62. W. S. Weiglhofer and A. Lakhtakia, A nonlinear bianisotropic composite made with a weakly quadratic nonlinear dielectric host medium, *Arch Elektr Übertr* **50** (1996), 285–288.

63. W. S. Weiglhofer and A. Lakhtakia, On causality requirements for material media, *Arch Elektr Übertr* **50** (1996), 389–391.

64. W. S. Weiglhofer and A. Lakhtakia, Mediation of nonlinear polarization by the magnetic field in a composite medium with a chiral component, *Microw Opt Technol Lett* **13** (1996), 285–287.

65. A. Lakhtakia and W. S. Weiglhofer, Constraint on linear, spatiotemporally nonlocal, spatiotemporally nonhomogeneous constitutive relations, *Int J Infrared Millim Waves* **17** (1996), 1867–1878.

66. A. Lakhtakia and W. S. Weiglhofer, Further results on light propagation in helicoidal bianisotropic mediums: Oblique propagation, *Proc Royal Soc London A* **453** (1997), 93–105; erratum: **454** (1998), 3275.

67. A. Lakhtakia, B. Michel and W. S. Weiglhofer, The role of anisotropy in the Maxwell Garnett and Bruggeman formalisms for uniaxial particulate composite media, *J Phys D: Appl Phys* **30** (1997), 230–240.

68. A. Lakhtakia and W. S. Weiglhofer, On the application of duality to Tellegen media, *Electromagnetics* **17** (1997), 199–204.

69. A. Lakhtakia and W. S. Weiglhofer, Green function for radiation and propagation in helicoidal bianisotropic medium, *IEE Proc Microw, Antennas Propagat* **144** (1997), 57–59.

70. A. Lakhtakia, B. Michel and W. S. Weiglhofer, Bruggeman formalism for two models of uniaxial composite media: Dielectric properties, *Compos Sci Technol* **57** (1997), 185–196.

71. W. S. Weiglhofer and A. Lakhtakia, On the non–existence of linear non–reciprocal bi–isotropic (NRBI) media, *J Phys A: Math Gen* **30** (1997), 2597–2600.

72. W. S. Weiglhofer, Comment on Scattering by a biisotropic body by J. Cesar Monzon, *IEEE Trans Antennas Propagat* **45** (1997), 748–749.

73. A. Lakhtakia, B. Michel and W. S. Weiglhofer, Field induced in an electrically small dielectric particle embedded in an uniaxial dielectric host medium, *Arch Elektr Übertr* **51** (1997), 231–232.

74. A. Lakhtakia and W. S. Weiglhofer, The Fikioris approach for the source–region electromagnetic field in a simple symmetric bianisotropic medium, *Microw Opt Technol Lett* **15** (1997), 84–86.

75. A. Lakhtakia and W. S. Weiglhofer, Time–harmonic electromagnetic field in a source region in an uniaxial dielectric–magnetic medium, *Int J Appl Electromag Mech* **8** (1997), 167–177.

76. A. Lakhtakia and W. S. Weiglhofer, On electromagnetic fields in a linear medium with gyrotropic–like magnetoelectric properties, *Microw Opt Technol Lett* **15** (1997), 168–170.

77. W. S. Weiglhofer, A. Lakhtakia and B. Michel, Maxwell Garnett and Bruggeman formalisms for particulate composite with bianisotropic host medium, *Microw Opt Technol Lett* **15** (1997), 263–266; erratum: **22** (1999), 221.

78. B. Michel and W. S. Weiglhofer, Pointwise singularity of dyadic Green function in a general bianisotropic medium, *Arch Elektr Übertr* **51** (1997), 219–223; erratum: **52** (1998), 31.

79. W. S. Weiglhofer and A. Lakhtakia, Source–region electric and magnetic fields in an uniaxial bianisotropic medium, *Electromagnetics* **17** (1997), 387–401.

80. A. Lakhtakia and W. S. Weiglhofer, Comments on Space–time and momentum representations of electromagnetic signals by P. Hillion, *Int J Appl Electromag Mech* **8** (1997), 285–287.

81. W. S. Weiglhofer and A. Lakhtakia, Further remarks on the nonexistence of linear nonreciprocal bi–isotropic (NRBI) media, *J Phys A: Math Gen* **31** (1998), 1113–1114.

82. W. S. Weiglhofer and A. Lakhtakia, Remarks on: Optical pulses in an optically active moving Tellegen medium, *J Opt* **29** (1998), 49–50.

83. A. Lakhtakia and W. S. Weiglhofer, Source–region electromagnetic field in an affinely transformable AUBM, *Int J Infrared Millim Waves* **19** (1998), 95–106.

84. A. Lakhtakia and W. S. Weiglhofer, Maxwell Garnett formalism for cubically nonlinear, gyrotropic, composite media, *Int J Electron* **84** (1998), 285–294.

85. W. S. Weiglhofer, Scalar Green functions and superpotentials of a Faraday chiral medium, *Arch Elektr Übertr* **52** (1998), 109–112.

86. W. S. Weiglhofer and A. Lakhtakia, The correct constitutive relations of chiroplasmas and chiroferrites, *Microw Opt Technol Lett* **17** (1998), 405–408.

87. B. Michel, A. Lakhtakia and W. S. Weiglhofer, Homogenization of linear bianisotropic particulate composite media — Numerical studies, *Int J Appl Electromag Mech* **9** (1998), 167–178; erratum: **10** (1999), 537–538.

88. A. Lakhtakia and W. S. Weiglhofer, Remarks on the nonexistence of linear Tellegen media (in Russian), *Radiotekhniki i Elektroniki* **43** (1998), 494–495.

89. A. Lakhtakia and W. S. Weiglhofer, Remarks on: The electromagnetic field in a uniformly moving crystal, *Pure Appl Opt* **7** (1998), 657.

90. W. S. Weiglhofer and A. Lakhtakia, The Post constraint revisited, *Arch Elektr Übertr* **52** (1998), 276–279.

91. W. S. Weiglhofer, New expressions for depolarization dyadics in an axially uniaxial bianisotropic medium, *Int J Infrared Millim Waves* **19** (1998), 993–1005.

92. W. S. Weiglhofer, A. Lakhtakia and B. Michel, On the constitutive parameters of a chiroferrite composite medium, *Microw Opt Technol Lett* **18** (1998), 342–345.

93. W. S. Weiglhofer, Comments on 'Green's dyadics for bi–anisotropic media with similar medium dyadics' by F. Olyslager and I. V. Lindell, *Microw Opt Technol Lett* **18** (1998), 439–440.

94. W. S. Weiglhofer, Electromagnetic depolarization dyadics and elliptic integrals, *J Phys A: Math Gen* **31** (1998), 7191–7196.

95. A. Lakhtakia and W. S. Weiglhofer, Are field derivatives needed in linear constitutive relations?, *Int J Infrared Millim Waves* **19** (1998), 1073–1082.

96. A. Lakhtakia and W. S. Weiglhofer, Rayleigh scattering by an infinitely long tube with helical permittivity dyadic, *J Phys D: Appl Phys* **31** (1998), 2499–2501.

97. A. Lakhtakia and W. S. Weiglhofer, Significance of cross–sectional morphology for Motohiro–Taga interfaces, *Optik* **110** (1999), 33–36.

98. W. S. Weiglhofer and S. O. Hansen, Faraday chiral media revisited–I: Fields and sources, *IEEE Trans Antennas Propagat* **47** (1999), 807–814.

99. W. S. Weiglhofer and A. Lakhtakia, On electromagnetic waves in biaxial bianisotropic media, *Electromagnetics* **19** (1999), 351–362.

100. W. S. Weiglhofer, On anomalous propagation in axially uniaxial bianisotropic mediums, *Int J Infrared Millim Waves* **20** (1999), 1277–1286.

101. W. S. Weiglhofer and A. Lakhtakia, Comment on 'Reflection and transmission by a uniaxial bi–anisotropic slab under normal incidence of plane waves' , *J Phys D: Appl Phys* **32** (1999), 2703–2704.

102. W. S. Weiglhofer, Electromagnetic field in the source region: A review, *Electromagnetics* **19** (1999), 563–578.

103. A. Lakhtakia and W. S. Weiglhofer, A comparative study of planewave propagation in helicoidal bianisotropic mediums and isotropic chiral mediums, *J Opt A: Pure Appl Opt* **2** (2000), 107–111.

104. A. Lakhtakia and W. S. Weiglhofer, Evanescent plane waves and the far field: Resolution of a controversy, *J Mod Opt* **47** (2000), 759–763.

105. A. Lakhtakia and W. S. Weiglhofer, Comments on 'Comparison of long–wavelength T–matrix multiple–scattering theory and size–dependent Maxwell–Garnett formula' , *Microw Opt Technol Lett* **25** (2000), 228–229.

106. W. S. Weiglhofer, On anomalous propagation in transversely uniaxial bianisotropic mediums, *Int J Infrared Millim Waves* **21** (2000), 895–904.

107. W. S. Weiglhofer, Comments on 'On the constitutive relations of chiral media and Green's dyadics for an unbounded chiral medium', *Microw Opt Technol Lett* **26** (2000), 277.

108. T. G. Mackay and W. S. Weiglhofer, Homogenization of biaxial composite materials: Dissipative anisotropic properties, *J Opt A: Pure Appl Opt* **2** (2000), 426–432.

109. W. S. Weiglhofer, The connection between factorization properties and closed–form solutions of certain linear dyadic differential operators, *J Phys A: Math Gen* **33** (2000), 6253–6261.

110. W. S. Weiglhofer and T. G. Mackay, Numerical studies on the constitutive parameters of a chiroplasma composite medium, *Arch Elektr Übertr* **54** (2000), 259–265.

111. A. Lakhtakia and W. S. Weiglhofer, Maxwell Garnett formalism for weakly nonlinear, bianisotropic, dilute, particulate composite media, *Int J Electron* **87** (2000), 1401–1408.

112. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Strong–property–fluctuation theory for homogenization of bianisotropic composites: Formulation, *Physical Review E* **62** (2000), 6052–6064; erratum: **63** (2001), 049901.

113. A. Lakhtakia and W. S. Weiglhofer, Electromagnetic waves in a material with simultaneous mirror–conjugated and racemic chirality characteristics, *Electromagnetics* **20** (2000), 481–488.

114. W. S. Weiglhofer, Scalar Hertz potentials for nonhomogeneous uniaxial dielectric–magnetic mediums, *Int J Appl Electromag Mech* **11** (2000), 131–140.

115. T. G. Mackay and W. S. Weiglhofer, Homogenization of biaxial composite materials: Bianisotropic properties, *J Opt A: Pure Appl Opt* **3** (2001), 45–52.

116. B. Michel, A. Lakhtakia, W. S. Weiglhofer and T. G. Mackay, Incremental and differential Maxwell Garnett formalisms for bi–anisotropic composites, *Compos Sci Technol* **61** (2001), 13–18.

117. T. G. Mackay and W. S. Weiglhofer, Homogenization of biaxial composite materials: Nondissipative dielectric properties, *Electromagnetics* **21** (2001), 15–26.

118. W. S. Weiglhofer, On the inverse homogenzation problem of linear composite materials, *Microw Opt Technol Lett* **28** (2001), 421–423.

119. A. Lakhtakia and W. S. Weiglhofer, Comments on 'Returning to the Post constraints', *Microw Opt Technol Lett* **29** (2001), 363.

120. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Ellipsoidal topology, orientation diversity and correlation length in bianisotropic composite mediums, *Arch Elektr Übertr* **55** (2001), 243–251.

121. W. S. Weiglhofer and A. Lakhtakia, Comment on 'Rigorous solution for transient propagation of electromagnetic waves through a medium: causality plus diffraction in time' , *Opt Lett* **26** (2001), 1218–1219.

122. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Homogenisation of similarly oriented, metallic, ellipsoidal inclusions using the bilocally–approximated strong–property–fluctuation theory, *Opt Commun* **197** (2001), 89–95.

123. A. Lakhtakia and W. S. Weiglhofer, Further comments on 'Returning to the Post constraints', *Microw Opt Technol Lett* **31** (2001), 402.

124. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Third–order implementation and convergence of the strong–property–fluctuation theory in electromagnetic homogenisation, *Phys Rev E* **64** (2001), 066616.

125. W. S. Weiglhofer, Comment on 'Post's constraint for electromagnetic constitutive relations' , *J Opt A: Pure Appl Opt* **4** (2002), 213–214.

126. W. S. Weiglhofer and T. G. Mackay, Needles and pillboxes in anisotropic mediums, *IEEE Trans Antennas Propagat* **50** (2002), 85–86.

127. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Homogenisation of isotropic, cubically nonlinear, composite mediums by the strong–permittivity–fluctuation theory: third–order considerations, *Opt Commun* **204** (2002), 219–228.

128. M. W. McCall, A. Lakhtakia and W. S. Weiglhofer, The negative index of refraction demystified, *Eur J Phys* **23** (2002), 353–359.

129. W. S. Weiglhofer and A. Lakhtakia, Remarks on 'Analytical investigation of electromagnetic waves in bianisotropic media' , *IEE Proc Microw, Antennas Propagat* **149** (2002), 138–139.

130. A. Lakhtakia, M. W. McCall and W. S. Weiglhofer, Brief overview of recent developments on negative phase–velocity materials (alias left–handed materials), *Arch Elektr Übertr* **56** (2002), 407–410.

131. N. Georgieva and W. S. Weiglhofer, Electromagnetic vector potentials and the scalarization of sources in a nonhomogeneous medium, *Phys Rev E* **66** (2002), 046614.

132. W. S. Weiglhofer, A. Lakhtakia and M. W. McCall, Optical switching in nonlinear chiral distributed Bragg reflectors with defect layers: comment, *J Opt Soc Amer B* **19** (2002), 3042–3043.

133. W. S. Weiglhofer and N. Georgieva, Vector potentials and scalarization for nonhomogeneous isotropic mediums, *Electromagnetics* **23** (2003), 387–398.

134. N. Georgieva and W. S. Weiglhofer, Electromagnetic vector potentials in isotropic nonhomogeneous materials: Mode equivalence and scalarization, *IEE Proc Microw, Antennas Propagat* **150** (2003), 164–170.

135. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, The strong–property–fluctuation theory for cubically nonlinear, isotropic chiral composite mediums, *Electromagnetics* **23** (2003), 455–479.

5. Replies to Comments

1. W. S. Weiglhofer and A. Lakhtakia, Response to 'Too–tight mathematical constraints lead to loss of physics', A. Sihvola, *IEEE Antennas Propagat Mag* **37** (1995), 96–99.

2. W. S. Weiglhofer and A. Lakhtakia, Response to 'Is reciprocal discussion of non–reciprocal materials allowed by Maxwell's equations?', A. Sihvola, *IEEE Antennas Propagat Mag* **37** (1995), 113.

3. W. S. Weiglhofer and A. Lakhtakia, Response to 'Anything wrong with the naturally non–reciprocal media?', S. Tretyakov, *IEEE Antennas Propagat Mag* **38** (1996), 85–86.

4. W. S. Weiglhofer and A. Lakhtakia, Response to 'Remark on the constitutive relations of linear biisotropic media', P. Hillion, *IEEE Antennas Propagat Mag* **38** (1996), 94–95.

5. A. Lakhtakia and W. S. Weiglhofer, Response to 'Comment on Electromagnetic waves in a material with simultaneous mirror–conjugated and racemic chirality characteristics', A. A. Sochava, C. R. Simovski and S. A. Tretyakov, *Electromagnetics* **21** (2001), 509–511.

6. Letters to the Editor

1. W. S. Weiglhofer and A. Lakhtakia, Thirty–five is enough: A new constraint for linear, bianisotropic media, *Radio Sci Bull* **273** (1995), 4.

2. W. S. Weiglhofer, What book review?, *Radio Sci Bull* **280** (1997), 3.

7. Book Reviews

1. J. A. Kong, *Electromagnetic wave theory*, John Wiley, New York (1986); *Arch Elektr Übertr* **41** (1987), 127.

2. R. Forward and J. Davis, *Mirror matter*; *New Scientist* **1656** (1989), 65.

3. A. Lakhtakia, V. K. Varadan and V. V. Varadan, *Time–harmonic electromagnetic fields in chiral media*, Springer, Berlin (1989); *URSI News* December (1989), 4–5.

4. A. Lakhtakia, V. K. Varadan and V. V. Varadan, *Time–harmonic electromagnetic fields in chiral media*, Springer, Berlin (1989); *Arch Elektr Übertr* **44** (1990), 420.

5. I. V. Lindell, *Methods of electromagnetic field analysis*, Clarendon Press, Oxford (1992); *Arch Elektr Übertr* **47** (1993), 155.

6. A. Lakhtakia, *Beltrami fields in chiral media*, World Scientific, Singapore (1994); *Arch Elektr Übertr* **50** (1996), 53.

7. I. V. Lindell, A. H. Sihvola, S. A. Tretyakov and A. J. Viitanen, *Electromagnetic waves in chiral and bi–isotropic media*, Artech House, Boston (1994); *Arch Elektr Übertr* **50** (1996), 58, 69.

8. L. B. Felsen and N. Marcuvitz, *Radiation and scattering of waves*, IEEE Press, Piscataway, NJ (1994); *Radio Sci Bull* **276** (1996), 46.

9. A. Priou, A. Sihvola, S. Tretyakov and A. Vinogradov, editors, *Advances in complex electromagnetic materials*, Kluwer Academic Publishers, Dordrecht (1997); *Radio Sci Bull* **285** (1998), 41–42.

10. E. J. Post, *Formal structure of electromagnetics*, Dover, New York (1997); *IEEE Antennas Propagat Mag* **40** (1998), 92–93.

11. A. Sihvola, *Electromagnetic mixing formulas and applications*, The Institution of Electrical Engineers, London, UK (1999); *Arch Elektr Übertr* **54** (2000), 266.

8. Conference Reports

1. W. S. Weiglhofer, Bianisotropics'97, *IEEE Antennas Propagat Mag* **39** (1997), 74–75.

2. W. S. Weiglhofer, Bianisotropics'97, *Radio Sci Bull*, **282** (1997), 20–22.

3. W. S. Weiglhofer, Bianisotropics'97, *Newsletter*, The University of Glasgow, Great Britain, **193** (1997), 16.

4. W. S. Weiglhofer, Bianisotropics'97, *Arch Elektr Übertr* **51** (1997), 322–323.

9. Conference Proceedings: Full Papers

1. W. Weiglhofer and W. Papousek, Zur Darstellung elektromagnetischer Felder in einem anisotropen Plasma durch skalare Potentiale, *Kleinheubacher Berichte* **29** (1986), 131–140.

2. W. Weiglhofer and W. Papousek, Scalar Hertz potentials and dyadic Green's functions for gyrotropic media, *Proceedings of the URSI international symposium on electromagnetic theory*, Budapest, Hungary, Akademiai Kiado (1986), 615–617.

3. W. Weiglhofer, Scalarization of Maxwell's equations in anisotropic media, *Kleinheubacher Berichte* **30** (1987), 465–474.

4. W. Weiglhofer, Scalar Hertz potentials — a new technique for the solution of microwave problems in inhomogeneous gyrotropic media, *SBMO International microwave symposium proceedings*, Rio de Janeiro, Brazil (1987), 691–696.

5. W. Weiglhofer, Field representation in warm magnetoplasmas by scalar potentials, *International symposium on radio propagation*, Beijing, People's Republic of China, International Information Exchange Service Company, Kowloon, Hong Kong (1988), 417–420.

6. W. Weiglhofer, Delta–function identities in electromagnetic radiation problems, *Kleinheubacher Berichte* **31** (1988), 347–353.

7. W. S. Weiglhofer, Inversion of dyadic differential operators with simple matrix methods, *Kleinheubacher Berichte* **32** (1989), 239–246.

8. W. S. Weiglhofer, A general inversion technique for a class of dyadic differential operators of electromagnetic theory, *Proceedings of the URSI international symposium on electromagnetic theory*, Royal Institute of Technology, Stockholm, Sweden (1989), 10–12.

9. W. S. Weiglhofer, Chiral media: New developments in an old field, *Proceedings of the URSI international symposium on electromagnetic theory*, Royal Institute of Technology, Stockholm, Sweden (1989), 271–273.

10. W. S. Weiglhofer, Field representation techniques for cold and warm magnetized plasmas, *Kleinheubacher Berichte* **33** (1990), 75–83.

11. W. S. Weiglhofer, Theory and applications of chiral media, *Kleinheubacher Berichte* **33** (1990), 287–296.

12. A. Lakhtakia and W. S. Weiglhofer, Bianisotropic sphere in a uniaxial medium with application to complex composites, *Proceedings of the URSI international symposium on electromagnetic theory*, Sydney, Australia (1992), 149–151.

13. W. S. Weiglhofer, Analytic techniques for Green's functions, *Proceedings of the URSI international symposium on electromagnetic theory,* Sydney, Australia (1992), 237–239.

14. W. S. Weiglhofer, MHD instabilities in rapidly rotating systems, *Current Topics in Astrophysical and Fusion Plasma Research*, *Proceedings of the international workshop on plasma physics* (M. F. Heyn, W. Kernbichler and H. K. Biernat, eds), Pichl/Schladming, Austria (1993), 5–10.

15. I. V. Lindell and W. S. Weiglhofer, Analytic solutions for fields in certain anisotropic chiral media, *Proceedings of Chiral'94, 3rd International workshop on chiral, bi–isotropic and bi–anisotropic media* (F. Mariotte and J.–P. Parneix, eds), Perigueux, France (1994), 131–135.

16. W. S. Weiglhofer and A. Lakhtakia, Exact solutions of Maxwell's equations for propagation in helicoidal bianisotropic media, *Proceedings of Chiral'94, 3rd International workshop on chiral, bi–isotropic and bi–anisotropic media* (F. Mariotte and J.–P. Parneix, eds), Perigueux, France (1994), 155–159.

17. W. S. Weiglhofer and A. Lakhtakia, Dyadic Green functions, radiation and scalar potentials in the time–dependent Beltrami formulation for free space, *Proceedings of Chiral'94, 3rd International workshop on chiral, bi–isotropic and bi–anisotropic media* (F. Mariotte and J.–P. Parneix, eds), Perigueux, France (1994), 335–340.

18. A. Lakhtakia and W. S. Weiglhofer, On the causal constitutive relations of magnetoelectric media, *Proceedings of the 1995 IEEE international symposium on electromagnetic compatiblity*, Atlanta, Georgia (1995), 611–613.

19. A. Lakhtakia and W. S. Weiglhofer, Source–region electromagnetic field in a uniaxial dielectric–magnetic medium, *Asia–Pacific microwave conference*, New Delhi, India (1996), 217–220.

20. W. S. Weiglhofer, Bianisotropy and bianisotropics'97 — a perspective, *Proceedings of Bianisotropics'97, International conference and workshop on electromagnetics of complex media*, (W. S. Weiglhofer, ed), Glasgow, Great Britain (1997), 23–26.

21. W. S. Weiglhofer and A. Lakhtakia, Homogenization of cubically nonlinear, gyrotropic, composite media, *Proceedings of Bianisotropics'97, International conference and workshop on electromagnetics of complex media* (W. S. Weiglhofer, ed), Glasgow, Great Britain (1997), 111–114.

22. W. S. Weiglhofer, Electromagnetic fields in source regions of bianisotropic media, *Proceedings of Bianisotropics'97, International conference and workshop on electromagnetics of complex media* (W. S. Weiglhofer, ed), Glasgow, Great Britain (1997), 169–172.

23. W. S. Weiglhofer, Dyadic Green functions in complex media, singularities and applications, *Proceedings of the URSI international symposium on electromagnetic theory*, Thessaloniki, Greece (1998), 211–213.

24. B. Michel, W. S. Weiglhofer and A. Lakhtakia, Homogenization of bianisotropic particulate composites, *Proceedings of the URSI international symposium on electromagnetic theory*, Thessaloniki, Greece (1998), 220–222.

25. W. S. Weiglhofer, A. Lakhtakia and B. Michel, On chiroplasmas and chiroferrites, *Proceedings of Bianisotropics '98, 7th International conference on complex media* (A. F. Jacob and J. Reinert, eds), Braunschweig, Germany (1998), 9–12.

26. W. S. Weiglhofer, Canonical problems for radiation and propagation in complex media, *Proceedings of Bianisotropics '98, 7th International conference on complex media* (A. F. Jacob and J. Reinert, eds), Braunschweig, Germany (1998), 215–218.

27. W. S. Weiglhofer and A. Lakhtakia, The Post constraint revisited, *Proceedings of Bianisotropics '98, 7th International conference on complex media* (A. F. Jacob and J. Reinert, eds), Braunschweig, Germany (1998), 241–244.

28. W. S. Weiglhofer and B. Michel, Explicit expressions for depolarization dyadics of biaxial anisotropic media, *Proceedings of Bianisotropics '98, 7th International conference on complex media* (A. F. Jacob and J. Reinert, eds), Braunschweig, Germany (1998), 245–248.

29. W. S. Weiglhofer, Electromagnetic theory of complex materials, *Engineered Nanostructural Films and Materials*, *Proceedings of SPIE international symposium on optical science, engineering, and instrumentation* (A. Lakhtakia and R. F. Messier, eds), Denver, Colorado, USA, SPIE Volume 3790 (1999), 66–76.

30. W. S. Weiglhofer, Homogenization of particulate materials, *Complex Mediums*, *Proceedings of SPIE international symposium on optical science, engineering, and instrumentation* (A. Lakhtakia, W. S. Weiglhofer and R. F. Messier, eds), San Diego, California, USA, SPIE Volume 4097 (2000), 146–154.

31. W. S. Weiglhofer and A. Lakhtakia, Waves and fields: From uniaxial to biaxial mediums, in between and beyond, *Proceedings of Bianisotropics 2000, 8th International conference on electromagnetics of complex media* (A. M. Barbosa and A. L. Topa, eds), Lisbon, Portugal (2000), 3–6.

32. A. Lakhtakia, M. N. Lakhtakia and W. S. Weiglhofer, Homogenization formalisms for nonlinear particulate composite mediums, *Proceedings of Bianisotropics 2000, 8th International conference on electromagnetics of complex media* (A. M. Barbosa and A. L. Topa, eds), Lisbon, Portugal (2000), 23–26.

33. B. Michel, A. Lakhtakia, W. S. Weiglhofer and T. G. Mackay, The incremental and differential Maxwell Garnett formalisms for bianisotropic composites, *Proceedings of Bianisotropics 2000, 8th International conference on electromagnetics of complex media* (A. M. Barbosa and A. L. Topa, eds), Lisbon, Portugal (2000), 27–30.

34. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Strong–property–fluctuation theory for homogenization of bianisotropic composites, *Proceedings of Bianisotropics 2000, 8th International conference on electromagnetics of complex media* (A. M. Barbosa and A. L. Topa, eds), Lisbon, Portugal (2000), 31–34.

35. W. S. Weiglhofer, Hertz potentials in complex medium electromagnetics, *Proceedings of Bianisotropics 2000, 8th International conference on electromagnetics of complex media* (A. M. Barbosa and A. L. Topa, eds), Lisbon, Portugal (2000), 107–110.

36. T. G. Mackay and W. S. Weiglhofer, Numerical homogenization studies of biaxial bianisotropic composite materials, *Proceedings of Bianisotropics 2000, 8th international conference on electromagnetics of complex media* (A. M. Barbosa and A. L. Topa, eds), Lisbon, Portugal (2000), 237–240.

37. W. S. Weiglhofer, Depolarization dyadics, *Proceedings of Bianisotropics 2000, 8th international conference on electromagnetics of complex media* (A. M. Barbosa and A. L. Topa, eds), Lisbon, Portugal (2000), 415–420.

38. W. S. Weiglhofer, A. Lakhtakia and T. G. Mackay, Propagation and radiation in a material combining mirror conjugation and racemic chirality, *Proceedings of the URSI international symposium on electromagnetic theory,* Victoria, Canada (2001), 193–195.

39. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Homogenization of bianisotropic composites via strong–property–fluctuation theory, *Proceedings of the URSI international symposium on electromagnetic theory,* Victoria, Canada (2001), 377–379.

40. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, The strong–property–fluctuation theory applied to the homogenisation of linear bianisotropic composites, *Complex mediums II: beyond linear isotropic dielectrics* (A. Lakhtakia, W. S. Weiglhofer and I. J. Hodkinson, eds), *Proceedings of SPIE* (International Symposium on Optical Science and Technology, San Diego, California, USA), **4467** (2001), 243–255.

41. W. S. Weiglhofer, Constitutive relations, *Complex mediums III: beyond linear isotropic dielectrics* (A. Lakhtakia, G. Dewar and M. W. McCall, eds), *Proceedings of SPIE* (International Symposium on Optical Science and Technology, Seattle, Washington, USA), **4806** (2002), 67–80.

42. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Trilocally approximated strong–permittivity–fluctuation theory for nonlinear composite mediums, *Complex mediums III: beyond linear isotropic dielectrics* (A. Lakhtakia, G. Dewar and M. W. McCall, eds), *Proceedings of SPIE* (International Symposium on Optical Science and Technology, Seattle, Washington, USA), **4806** (2002), 100–111.

43. A. Lakhtakia, M. W. McCall, W. S. Weiglhofer, J. Gerardin and J. Wang, On mediums with negative phase velocity: A brief overview, *Complex mediums III: beyond linear isotropic dielectrics* (A. Lakhtakia, G. Dewar and M. W. McCall, eds), *Proceedings of SPIE* (International Symposium on Optical Science and Technology, Seattle, Washington, USA), **4806** (2002), 176–180.

10. Conference Proceedings: Abstracts and Extended Abstracts

1. W. S. Weiglhofer, Analytic field representations in inhomogeneous isotropic chiral media, *XXIII General assembly of URSI*, Prague, Czechoslovakia, **2** (1990), 409.

2. W. S. Weiglhofer, Symbolic methods versus scalarization techniques, *Kleinheubacher Berichte* **34** (1991), 291–292.

3. W. S. Weiglhofer, Representation of fields in Faraday chiral media, *Progress in electromagnetics research symposium* 1993, Pasadena, California, USA (1993), 2P5/1.

4. I. V. Lindell and W. S. Weiglhofer, Construction of the Green dyadic for axially chiral uniaxial media, *Proceedings of Chiral'94, 3rd International workshop on chiral, bi–isotropic and bi–anisotropic media* (F. Mariotte and J.–P. Parneix, eds), Perigueux, France (1994), 303.

5. W. S. Weiglhofer and A. Lakhtakia, Electromagnetic fields in source regions of anisotropic media, *1994 URSI Radio science meeting abstracts*, Seattle, Washington, USA (1994), 79.

6. W. S. Weiglhofer and A. Lakhtakia, Supercholesteric materials, *1994 URSI Radio science meeting abstracts*, Seattle, Washington, USA (1994), 356.

7. I. V. Lindell and W. S. Weiglhofer, Green dyadic of a uniaxial chiral medium, *1994 URSI Radio science meeting abstracts*, Seattle, Washington, USA (1994), 424.

8. W. S. Weiglhofer and A. Lakhtakia, Optical propagation in helicoidal bianisotropic media, *1994 URSI Radio science meeting abstracts*, Seattle, Washington, USA (1994), 426.

9. W. S. Weiglhofer and I. V. Lindell, Scalar potential formalism for uniaxial bianisotropic media, *1994 IEEE Antennas and propagation society international symposium digest*, Seattle, Washington, USA (1994), 1586–1589.

10. W. S. Weiglhofer, On factorization of differential operators and analytic solutions in electromagnetic theory, *1994 IEEE Antennas and propagation society international symposium digest*, Seattle, Washington, USA (1994), 1598–1601.

11. W. S. Weiglhofer, Closed–form expressions for one–dimensional dyadic Green functions of general homogeneous and some inhomogeneous linear bianisotropic media, *Progress in electromagnetics research symposium*, Seattle, Washington, USA (1995), 164.

12. W. S. Weiglhofer, S. F. Nagle and A. Lakhtakia, Axial propagation in helicoidal bianisotropic media: dependence of mode handedness on pitch, *Progress in electromagnetics research symposium*, Seattle, Washington, USA (1995), 288.

13. W. S. Weiglhofer and A. Lakhtakia, Linear constitutive relations and Maxwell's equations: the case for mathematical consistency, *Progress in electromagnetics research symposium*, Seattle, Washington, USA (1995), 1103.

14. A. Lakhtakia and W. S. Weiglhofer, Constraint on the constitutive relations of a general linear, spatiotemporally nonlocal medium, *1996 URSI Radio science meeting abstracts*, Baltimore, Maryland, USA (1996), 205.

15. A. Lakhtakia and W. S. Weiglhofer, Exact analytic solution for oblique propagation in helicoidal bianisotropic mediums, *1996 URSI Radio science meeting abstracts*, Baltimore, Maryland, USA (1996), 206.

16. W. S. Weiglhofer and A. Lakhtakia, Dilute nonlinear particulate composites, *XXV General assembly of URSI*, Lille, France, (1996), 36.

17. W. S. Weiglhofer and A. Lakhtakia, On constitutive relations for linear materials, *XXV General assembly of URSI*, Lille, France, (1996), 40.

18. W. S. Weiglhofer and A. Lakhtakia, Wave propagation in helicoidal bianisotropic media, *XXV General assembly of URSI*, Lille, France, (1996), 82.

19. A. Lakhtakia and W. S. Weiglhofer, The Fikioris approach for source–region fields in an uniaxial dielectric–magnetic medium, *1997 URSI Radio science meeting abstracts*, Montreal, Canada (1997), 92.

20. A. Lakhtakia, B. Michel and W. S. Weiglhofer, Bruggeman formalism for composite media with aligned short fibers, *1997 URSI Radio science meeting abstracts*, Montreal, Canada (1997), 142.

21. W. S. Weiglhofer, Constitutive relations, *NATO Advanced research workshop bianisotropics 2002, 9th International conference on electromagnetics of complex media* (S. Zouhdi and M. Arsalane, eds), Marrakech, Morocco (2002), 26.

22. T. G. Mackay, A. Lakhtakia and W. S. Weiglhofer, Homogenisation via the strong–property–fluctuation theory: third–order implementation and convergence, *NATO Advanced research workshop bianisotropics 2002, 9th International conference on electromagnetics of complex media* (S. Zouhdi and M. Arsalane, eds), Marrakech, Morocco (2002), 28.

23. A. Lakhtakia and W. S. Weiglhofer, Promiscuity–promoting perambulations in the polarizabilities of poly–isotropic spheres, *NATO Advanced research workshop bianisotropics 2002, 9th International conference on electromagnetics of complex media* (S. Zouhdi and M. Arsalane, eds), Marrakech, Morocco (2002), 63.