List of Publications

Ismo V. Lindell
Professor Emeritus
Department of Radio Science and Engineering
School of Electrical Engineering
Aalto University
Espoo, Finland
ismo.lindell@aalto.fi

February 13, 2014

Books

Monographs

1. I.V. Lindell: *Methods for Electromagnetic Field Analysis*. Oxford: Clarendon Press, 290pp., 1992; second edition IEEE Press 320pp, 1995, third printing Wiley 2002. ISBN 0-7803-1154-X

2. I.V. Lindell, A.H. Sihvola, S.A. Tretyakov, A.J. Viitanen: *Electromagnetic Waves in Bi-Isotropic and Chiral Media*, Boston: Artech House, 320pp, 1994. ISBN 0-89006-684-1

3. I.V. Lindell: *Differential Forms in Electromagnetics*, New York: Wiley and IEEE Press, 270pp, 2004. ISBN 0-471-64801-9

4. I. Lindell: *Sähkön pitkä historia (Long History of Electricity)*, Helsinki: Gaudeamus/Otatieto 2009, 454pp. ISBN 978-951-672-358-0. **Valtion tiedonjulkistamispalkinto (State Award for Public Information), April 2010**. 2nd printing 2010.

Textbooks

1. I. Lindell: *Radioaaltojen eteneminen* (*Propagation of Radio Waves*). Espoo: Otatieto 1986, 207 pp; 2nd edition 1987; 3rd revised and augmented edition 1994, 261pp, ISBN 951-672-227-X

2. I. Lindell: *Antenniteoria*, (*Antenna Theory*). Espoo: Otatieto 1986, 222pp; 2nd edition 1987 **(Best textbook of the year prize 1987)**. I. Lindell, K. Nikoskinen: *Antenniteoria*, 3rd revised and augmented edition 1995, 347pp; 4th revised edition 1997. ISBN 951-672-219-9

3. A. Sihvola, I. Lindell: *Radioaaltojen harjoituksia* (*Problem Book for Radio Wave Propagation*), Espoo: Otatieto 1988, 82pp, ISBN 951-672-059-5

4. M. Oksanen, I. Lindell: *Aaltojohtojen harjoituksia* (*Problem Book for Waveguide Theory*). Espoo: Otatieto 1990, 131pp, ISBN 951-672-093-5

5. A. Sihvola, I. Lindell: *Antenniteorian harjoituksia* (*Problem Book for Antenna Theory*). Espoo: Otatieto 1990, 158pp, ISBN 951-672-090-0

6. I. Lindell: *Aaltojohtoteoria* (*Waveguide Theory*), Espoo: Otatieto 1990, 299pp. Second totally rewritten edition 1997, 345pp, ISBN 951-672-259-8

7. M. Oksanen, I. Lindell: *Staattisen kenttäteorian harjoituksia* (*Problem Book for Static Field Theory*), Espoo: Otatieto 1991, 126pp, 951-672-135-4

8. I. Lindell: *Sähkötekniikan historia* (*History of Electrical Engineering*), Espoo: Otatieto 1994, 377pp, ISBN 951-672-188-5

9. I. Lindell, A. Sihvola: *Sähkömagneettinen kenttäteoria 1: Staattiset kentät* (*Electromagnetic Field Theory 1: Static Fields*), Espoo: Otatieto 1995, 225pp. 2nd revised edition 1999, 3rd edition 2001, 5th printing 2004, ISBN 951-672-326-8

10. A. Sihvola, I. Lindell: *Sähkömagneettinen kenttäteoria 2: Dynaamiset kentät* (*Electromagnetic Field Theory 2: Dynamic Fields*), Espoo: Otatieto 1996, 200pp. 2nd revised edition 2000, 4th revised edition 2004, ISBN 951-672-327-6

Refereed Journal Articles and Book Chapters

1. I.V. Lindell: Slope parameter and Q of radial resonators, *IEEE Transactions on Microwave Theory and Techniques*, vol.14, no.2, pp.97-98, February 1966.

2. I.V. Lindell: Two-dimensional electromagnetic field problems specified in terms of a vector admittance function, *Proceedings of the IEEE*, vol.56, no.1, pp.131-132, January 1968.

3. I.V. Lindell: Minimum attenuation of spherical shields, *IEEE Transactions on Antennas and Propagation*, vol.16, no.3, pp.369-371, May 1968.

4. I.V. Lindell: On the formulation of a class of electromagnetic field problems in terms of vector admittance and impedance functions, *Acta Polytechnica Scandinavica*, vol.Ph 78, 1971.

5. I.V. Lindell: Some properties of lossless bianisotropic media, *Proceedings of the IEEE*, vol.60, no.4, pp.463-464, April 1972.

6. I.V. Lindell: On the definiteness of the constitutive parameters of a moving anisotropic medium, *Proceedings of the IEEE*, vol.60, no.5, pp.638-639, May 1972.

7. I.V. Lindell: Wave normal and ray propagation in lossless positive bianisotropic media, *Acta Polytechnica Scandinavica*, vol.El 31, 1972.

8. I.V. Lindell: Coordinate independent dyadic formulation of wave normal and ray surfaces of general anisotropic media, *Journal of Mathematical Physics*, vol.14, no.1, pp.65-67, January 1973.

9. I.V. Lindell: On the quasi-TEM modes in inhomogeneous multiconductor transmission lines, *IEEE Transactions on Microwave Theory and Techniques*, vol.29, no.8, pp.812-817, August 1981.

10. I.V. Lindell: Asymptotic high-frequency modes of homogeneous waveguide structures with impedance boundaries, *IEEE Transactions on Microwave Theory and Techniques*, vol.30, no.10, pp.1087-1093, October 1981.

11. I.V. Lindell: Variational methods for nonstandard eigenvalue problems in waveguide and resonator analysis, *IEEE Transactions on Microwave Theory and Techniques*, vol.30, no.8, pp.1194-1204, August 1982.

12. I.V. Lindell: Complex vector algebra in electromagnetics, *International Journal of Electrical Engineering Education*, vol.20, no.1, pp.33-47, January 1983.

13. I.V. Lindell, A.H. Sihvola: Dielectrically loaded corrugated waveguide: variational analysis of a nonstandard eigenproblem, *IEEE Transactions on Microwave Theory and Techniques*, vol.31, no.7, pp.520-526, July 1983.

14. I.V. Lindell, M.I. Oksanen: Transversely anisotropic optical fiber: variational analysis of a nonstandard eigenproblem, *IEEE Transactions on Microwave Theory and Techniques*, vol.31, no.9, pp.736-745, September 1983.

15. I.V. Lindell: Reply to comment on 'Variational methods for nonstandard eigenvalue problems in waveguide and resonator analysis', *IEEE Transactions on Microwave Theory and Techniques*, vol.31, no.9, pp.788-789, September 1983.

16. I.V. Lindell, E. Alanen: Exact image theory for the Sommerfeld half-space problem. Part I: Vertical magnetic dipole, *IEEE Transactions on Antennas and Propagation*, vol.32, no.2, pp.126-133, February 1984.

17. I.V. Lindell, M.I. Oksanen: Asymptotic analysis of weakly guiding anisotropic optical fibers, *Journal of the Optical Society of America A*, vol.1, no.1, pp.87-95, January 1984.

18. I.V. Lindell: Reaction to response to reply to comments on 'Variational methods for nonstandard eigenvalue problems in waveguide and resonator analysis', *IEEE Transactions on Microwave Theory and Techniques*, vol.32, no.4, pp.475-476, April 1984.

19. I.V. Lindell, E. Alanen: Exact image theory for the Sommerfeld half-space problem. Part

II: Vertical electric dipole, *IEEE Transactions on Antennas and Propagation*, vol.32, no.8, pp.841-847, August 1984.

20. I.V. Lindell, E. Alanen: Exact image theory for the Sommerfeld half-space problem. Part III: General theory, *IEEE Transactions on Antennas and Propagation*, vol.32, no.10, pp.1027-1032, October 1984.

21. E. Alanen, I.V. Lindell: Impedance of vertical electric and magnetic dipole above a dissipative ground, *Radio Science*, vol.19, no.6, pp.1469-1474, November-December 1984.

22. E. Alanen, I.V. Lindell: Image calculation of electromagnetic field from power lines above a dissipative ground, *Archiv für Elektrotechnik*, vol.68, no.4, pp.259-265, April, 1985.

23. I.V. Lindell, E. Alanen, K. Mannersalo: Exact image method for impedance computation of antennas above the ground, *IEEE Transactions on Antennas and Propagation*, vol.33, no.9, pp.937-945, September 1985.

24. I.V. Lindell, E. Alanen, H. von Bagh: Exact image theory for the calculation of fields transmitted through a planar interface of two media, *IEEE Transactions on Antennas and Propagation*, vol.AP-34, no.2, pp.129-137, February 1986. **(S.A. Schelkunoff best paper prize award)**.

25. E. Alanen, I.V. Lindell: Effect of skin in microwave detection of breast cancer, *IEEE Transactions on Microwave Theory and Techniques*, vol.34, no.5, pp.584-588, May 1986.

26. I.V. Lindell, V.P.Akimov, E. Alanen: Image theory for dipole excitation of fields above and below a wire grid with square cells, *IEEE Transactions on Electromagnetic Compatibility*, vol.EMC-28, no.2, pp.107-110, May 1986.

27. E. Alanen, I.V. Lindell, A.T. Hujanen: Exact image method for field calculation in horizontally layered medium above a conducting ground plane, *IEE Proceedings*, vol.133, Part H, no.4, pp.297-304, August 1986.

28. I.V. Lindell, E. Alanen, A.T. Hujanen: Exact image theory for the analysis of microstrip structures. *Journal of Electromagnetic Waves and Applications*, vol.1, no.2, pp.95-108, 1987.

29. I.V. Lindell: Complex space multipole expansion theory with application to scattering from dielectric bodies. *IEEE Transactions on Antennas and Propagation*, vol.35, no.6, pp.683-689, June 1987.

30. I.V. Lindell, Q. Gu: Theory of time-domain quasi-TEM modes in inhomogeneous multiconductor lines. *IEEE Transactions on Microwave Theory and Techniques*, vol.35, no.10, pp.893-897, October 1987.

31. I.V. Lindell, K.I. Nikoskinen: Complex space multipole theory for scattering and diffraction problems. *Radio Science*, vol.22, no.6, pp.963-967, November 1987.

32. I.V. Lindell: Exact image method for Gaussian beam problems involving a planar interface. *Journal of the Optical Society of America A*, vol.4, no.12, pp.2185-2190, December 1987.

33. I.V. Lindell: Exact image theory for the slab problem. *Journal of Electromagnetic Waves and Applications*, vol.2, no.2, pp.195-215, 1988.

34. I.V. Lindell, K.I. Nikoskinen: Application of moment iteration method (MIM) to electromagnetic field computation. *Archiv für Elektronik und Übertragungstechnik*, vol.42, no.4, pp.248-253, July/August 1988.

35. I.V. Lindell: On the integration of image sources in exact image method of field analysis. *Journal of Electromagnetic Waves and Applications*, vol.2, no.7, pp.607-619, 1988.

36. A. Sihvola, I.V. Lindell: Transmission-line analogy for calculating the effective permittivity of mixtures with spherical multilayer scatterers. *Journal of Electromagnetic Waves and Applications*, vol.2, no.8, pp.741-756, 1988.

37. I.V. Lindell: TE/TM decomposition of electromagnetic sources, *IEEE Transactions on Antennas and Propagation*, vol.36, no.10, pp.1382-1388, October 1988.

38. M.I. Oksanen, I.V. Lindell: Variational analysis of anisotropic graded-index optical fibers. *IEEE Journal of Lightwave Technology*, vol.7, no.1, pp.87-91, January 1989.

39. A. Sihvola, I.V. Lindell: Polarizability and effective permittivity of layered and continuously inhomogeneous dielectric spheres. *Journal of Electromagnetic Waves and Applications*, vol.3, no.1, pp.37-60, 1989.

40. M.I. Oksanen, I.V. Lindell: Transversely anisotropic curved optical fibers: Variational analysis of a nonstandard eigenproblem, *IEEE Transactions on Microwave Theory and Techniques*, vol.37, no.1, pp.51-62, January 1989.

41. M.I. Oksanen, I.V. Lindell: Complex-valued functionals in variational analysis of waveguides with impedance boundaries. *IEE Proceedings, part H.*, vol.136, pp.281-288, August 1989.

42. I.V. Lindell, K.I. Nikoskinen, E. Alanen, A.T. Hujanen: Scalar Green function method for microstrip antenna analysis based on the exact image theory. *Annales des Télécommunications*, vol.44, no.9-10, pp.533-542, 1989.

43. A. Sihvola, I.V. Lindell: Polarizability and effective permittivity of layered and continuously inhomogeneous dielectric ellipsoids. *Journal of Electromagnetic Waves and Applications*, vol.4, no.1, pp.1-26, 1990.

44. A.H. Sihvola, I.V. Lindell: Chiral Maxwell-Garnett mixing formula. *Electronics Letters*, vol.26, no.2, pp.118-119, January 1990.

45. I.V. Lindell, A.J. Viitanen, A.H. Sihvola: Exact image theory for uniaxially anisotropic dielectric half space. *Journal of Electromagnetic Waves and Applications*, vol.4, no.2, pp.129-143, 1990.

46. A.J. Viitanen, I.V. Lindell, A.H. Sihvola: Polarization correction of Luneburg lens with chiral medium. *Microwave and Optical Technology Letters*, vol.3, no.2, pp.62-66, February 1990.

47. K.I. Nikoskinen, I.V. Lindell: Time-domain analysis of the Sommerfeld VMD problem based on the exact image theory, *IEEE Transactions on Antennas and Propagation*, vol.38, no.2, pp.241-250, February 1990.

48. I.V. Lindell: Time-domain TE-TM decomposition for electromagnetic sources. *IEEE Transactions on Antennas and Propagation*, vol.38, no.3, pp.353-358, March 1990.

49. A.J. Viitanen, I.V. Lindell, A.H. Sihvola, S.A. Tretyakov: Eigensolutions for the reflection problem involving the interface of two chiral half spaces. *Journal of the Optical Society of America A*, vol.7, no.4, pp.683-692, April 1990.

50. M.I. Oksanen, H. Mäki, I.V. Lindell: Nonstandard variational method for calculating attenuation in optical fibers. *Microwave and Optical Technology Letters*, vol.3, no.5, pp.160-164, May 1990.

51. I.V. Lindell, K.I. Nikoskinen: Time-domain Green function corresponding to a time-harmonic point source in complex space. *Electromagnetics*, vol.10, no.3, pp.313-325, 1990.

52. A.H. Sihvola, I.V. Lindell: Polarizability and mixing formula for chiral ellipsoids. *Electronics Letters* , vol.26, no.14, pp.1007-1009, July 1990.

53. I.V. Lindell, A.H. Sihvola, A.J. Viitanen, S.A. Tretyakov: Geometrical optics in inhomogeneous chiral media with application to polarization correction in inhomogeneous lens antennas. *Journal of Electromagnetic Waves and Applications*, vol.4, no.6, pp.533-548, 1990.

54. M.I. Oksanen, S.A. Tretyakov, I.V. Lindell: Vector circuit theory for achiral and chiral slabs. *Journal of Electromagnetic Waves and Applications*, vol.4, no.7, pp.613-643, 1990.

55. I.V. Lindell: Simple derivation of various Green dyadics for chiral media. *Archiv für Elektronik und Übertragungstechnik*, vol.44, no.5, pp.427-429, 1990.

56. I.V. Lindell, A.H. Sihvola: Quasi-static analysis of scattering from a chiral sphere. *Journal of Electromagnetic Waves and Applications*, vol.4, no.12, pp.1223-1231, 1990.

57. I.V. Lindell, A.H. Sihvola, K.O. Muinonen, P.W. Barber: Scattering by a small object close to an interface. I: Exact Image Theory Formulation. *Journal of the Optical Society of America A*, vol.8, no.3, pp.472-476, March 1991.

58. K.O. Muinonen, A.H. Sihvola, I.V. Lindell, K.A. Lumme: Scattering by a small object close to an interface. II: Study of backscattering. *Journal of the Optical Society of America A*, vol.8, no.3, pp.477-482, March 1991.

59. I.V. Lindell, A.H. Sihvola: Generalized WKB approximation for stratified isotropic chiral structures. *Journal of Electromagnetic Waves and Applications*, vol.5, no.8, pp.857-872, 1991.

60. A.H. Sihvola, I.V. Lindell: Bi-isotropic constitutive relations. *Microwave and Optical Technology Letters*, vol.4, no.8, pp.295-297, July 1991.

61. A. Lehtola, K.I. Nikoskinen, I.V. Lindell: Application of the Green's function technique in microstrip patch antenna analysis. *Microwave and Optical Technology Letters*, vol.4, no.9, pp.341-348, August 1991.

62. M.I. Oksanen, P.K. Koivisto, I.V. Lindell: Dispersion curves and fields for a chiral slab waveguide. *IEE Proceedings, part H*, vol.138, no.4, pp.327-334, August 1991.

63. A.J. Viitanen, I.V. Lindell, A.H. Sihvola: Generalized WKB approximation for stratified isotropic chiral media with obliquely incident plane waves. *Journal of Electromagnetic Waves and Applications*, vol.5, no.10, pp.1105-1121, 1991.

64. I.V. Lindell, A.H. Sihvola: Explicit expression for Brewster angles of isotropic-biisotropic interface. *Electronics Letters* , vol.27, no.23, pp.2163-2165, November 1991.

65. I.V. Lindell, A.J. Viitanen: Duality transformations for general bi-isotropic (nonreciprocal chiral) media. *IEEE Transactions on Antennas and Propagation*, vol.40, no.1, pp.91-95, January 1992.

66. I.V. Lindell, S.A. Tretyakov, M.I. Oksanen: Conductor-backed Tellegen slab as twist polarizer. *Electronics Letters* , vol.28, no.3, January 1992, pp.281-282.

67. I.V. Lindell: Electrostatic image theory for the dielectric sphere. *Radio Science*, vol.27, no.1, pp.1-8, January-February 1992.

68. I.V. Lindell, A.H. Sihvola, A.J. Viitanen: Plane-wave reflection from a bi-isotropic (nonreciprocal chiral) interface. *Microwave and Optical Technology Letters*, vol.5, no.2, pp.79-81, February 1992.

69. I.V. Lindell: Variational method for the analysis of lossless bi-isotropic (nonreciprocal chiral) waveguides. *IEEE Transactions on Microwave Theory and Techniques*, vol.40, no.2, pp.402-405, February 1992.

70. I.V. Lindell: Quasi-static image theory for the bi-isotropic (nonreciprocal chiral) sphere. *IEEE Transactions on Antennas and Propagation*, vol.40, no.2, pp.228-233, February 1992.

71. A.H. Sihvola, I.V. Lindell: Polarizability modeling of heterogeneous media. Chapter 3 in the book *Dielectric Properties of Heterogeneous Materials*, *Progress in Electromagnetics Research*, vol.6, New York: Elsevier, 1992, pp.101-151.

72. A.H. Sihvola, I.V. Lindell: Effective permeability of mixtures. Chapter 4 in the book *Dielectric Properties of Heterogeneous Materials*, *Progress in Electromagnetics Research*, vol.6, New York: Elsevier, 1992, pp.153-180.

73. A.H. Sihvola, I.V. Lindell: Analysis of chiral mixtures. *Journal of Electromagnetic Waves and Applications*, vol.6, no.5-6, pp.559-572, 1992.

74. I.V. Lindell, M.E. Ermutlu, A.H. Sihvola: Electrostatic image theory for the layered dielectric sphere. *IEE Proceedings, part H*, vol.139, no.2, pp.186-192, April 1992.

75. I.V. Lindell: On the reciprocity of bi-isotropic media. *Microwave and Optical Technology Letters*, vol.5, no.7, pp.343-346, June 1992.

76. A.H. Sihvola, I.V. Lindell: Properties of bi-isotropic Fresnel reflection coefficients. *Optics Communications*, vol.89, no.1, pp.1-4, 1992.

77. I.V. Lindell, E.A. Lehtola: Magnetostatic image theory for the permeable sphere, *IEEE Transactions on Magnetics*, vol.28, no.4, pp.1930-1934, July 1992.

78. J.C.-E. Sten, I.V. Lindell: Electrostatic image theory for the dielectric sphere with an internal source. *Microwave and Optical Technology Letters*, vol.5, no.11, pp.597-602, October 1992.

79. A.J. Viitanen, I.V. Lindell: Perturbation theory for a corrugated waveguide with a bi-isotropic rod. *Microwave and Optical Technology Letters*, vol.5, no.14, pp.729-732, December 1992.

80. I.V. Lindell, S.A. Tretyakov, M.I. Oksanen: Vector transmission-line and circuit theory for biisotropic layered structures, *Journal of Electromagnetic Waves and Applications*, vol.7, no.1, pp.147-173, 1993.

81. I.V. Lindell: Image theory for electrostatic and magnetostatic problems involving a material sphere. *American Journal of Physics*, vol.61, no.1, pp.39-44, January 1993.

82. I.V. Lindell, A.J. Viitanen: Plane wave propagation in a uniaxial bianisotropic medium. *Electronics Letters* , vol.29, no.2, pp.150-152, January 1993.

83. I.V. Lindell, M.E. Ermutlu, K.I. Nikoskinen: Two-dimensional image theory for the conducting half plane, *Journal of Electromagnetic Waves and Applications*, vol.7, no.2, pp.179-196, 1993.

84. I.V. Lindell: Static image theory for bi-isotropic media with plane parallel interfaces. *Microwave and Optical Technology Letters*, vol.6, no.4, pp.228-230, March 1993.

85. P.K. Koivisto, I.V. Lindell, A.H. Sihvola: Exact image theory for fields reflected from bi-isotropic (nonreciprocal isotropic) impedance surface. *Journal of Electromagnetic Waves and Applications*, vol.7, no.4, pp.577-598, 1993.

86. V.P. Akimov, I.V. Lindell: Electromagnetic field and and input impedance of a horizontal dipole in front of a grid screen (in Russian). *Questions in Electromagnetic Compatibility and Computation of Antennas and Radio Links*, editors V.P. Serkov and B.V. Sosunov, St Petersburg Military Academy of Telecommunications, 1993, pp.101-107.

87. I.V. Lindell: Static image theory for layered isotropic and bi-isotropic cylinders. *Microwave and Optical Technology Letters*, vol.6, no.6, pp.383-387, May 1993.

88. I.V. Lindell: Delta function expansions, complex delta functions and the steepest-descent method. *American Journal of Physics*, vol.61, no.5, pp.438-442, May 1993.

89. I.V. Lindell, J.C-E. Sten, K.I. Nikoskinen: Electrostatic image solution for the interaction of two dielectric spheres. *Radio Science*, vol.28, no.3, pp.319-329, May-June 1993.

90. I.V. Lindell, A.J. Viitanen, P.K. Koivisto: Plane-wave propagation in a transversely bianisotropic uniaxial medium. *Microwave and Optical Technology Letters*, vol.6, no.8, pp.478-481, June 1993.

91. A.J. Viitanen, I.V. Lindell: Uniaxial chiral quarter-wave polarization transformer. *Electronics Letters* , vol.29, no.12, pp.1074-75, June 1993.

92. I.V. Lindell, S.A. Tretyakov, A.J. Viitanen: Plane-wave propagation in a uniaxial chiro-omega medium. *Microwave and Optical Technology Letters*, vol.6, no.9, pp.517-520, July 1993.

93. M.E. Ermutlu, I.V. Lindell, K.I. Nikoskinen: Two-dimensional image theory for the conducting wedge. *Journal of Electromagnetic Waves and Applications*, vol.7, no.7, pp.971-986, 1993

94. A.H. Sihvola, I.V. Lindell: Novel effects in wave reflection from bi-isotropic media. *Microwave and Optical Technology Letters*, vol.6, no.10, pp.581-585, August 1993.

95. I.V. Lindell: Application of the image concept in electromagnetics. Invited chapter in *URSI Review of Radio Science 1990-1992* (ed. W.R. Stone), Oxford University Press, 1993, pp.107-126.

96. A.H. Sihvola, I.V. Lindell: Polarizability of gyrotropic sphere. *International Journal on Infrared and Millimeter Waves* vol.14, no.8, pp.1547-1552, August 1993.

97. I.V. Lindell, E.A. Lehtola, K.I. Nikoskinen: Magnetostatic image theory for an arbitrary current loop in front of a permeable sphere. *IEEE Transactions on Magnetics*, vol.29, no.5, pp.2202-2206, September 1993.

98. A.J. Viitanen, I.V. Lindell: Plane wave propagation in a uniaxial bianisotropic medium with an application to a polarization transformer. *International Journal on Infrared and Millimeter Waves*, vol.14, no.10, pp.1993-2010, December 1993.

99. I.V. Lindell, M.E. Ermutlu, K.I. Nikoskinen, E.H. Eloranta: Static image principle for anisotropic conducting half space problems, PEC and PMC boundaries. *Geophysics*, vol.58, no.12, pp.1861-1864, December 1993.

100. I.V. Lindell, M.E. Ermutlu, K.I. Nikoskinen, E.H. Eloranta: Static image principle for anisotropic conducting half space problems, impedance boundary. *Geophysics*, vol.58, no.12, pp.1773-1778, December 1993.

101. S. He, I.V. Lindell: Propagating eigenmodes for plane waves in a uniaxial bianisotropic medium and reflection from a planar interface. *IEEE Transactions on Antennas and Propagation*, vol.41, no.12, pp.1659-1664, December 1993.

102. K.I. Nikoskinen, I.V. Lindell, M.E. Ermutlu: Transient analysis of conducting half-plane problem with noncausal scattering image. *Microwave and Optical Technology Letters*, vol.7, no.1, pp.31-34, January 1994.

103. W.S. Weiglhofer, I.V. Lindell: Analytic solution for the Green's function of a nonreciprocal uniaxial bianisotropic medium. *Archiv für Elektronik und Übertragungstechnik*, vol.48, no.2, pp.116-119, 1994.

104. I.V. Lindell, M.E. Valtonen, A.H. Sihvola: Theory of nonreciprocal and nonsymmetric uniform transmission lines. *IEEE Transactions on Microwave Theory and Techniques*, vol.42, no.2, pp.291-297, February 1994.

105. I.V. Lindell, J.C-E. Sten, R.E. Kleinman: Low-frequency image theory for the dielectric sphere. *Journal of Electromagnetic Waves and Applications*, vol.8, no.3, pp.295-313, March 1994.

106. W.S. Weiglhofer, I.V. Lindell: Fields and potentials in general uniaxial bianisotropic media I: axial sources, *Int. J. Appl. Electromagnetics in Materials*, vol.4, pp.211-220, 1994.

107. I.V. Lindell, M.E. Ermutlu, K.I. Nikoskinen, E.H. Eloranta: Static image principle for two conducting anisotropic half spaces with similar transverse anisotropies. *Radio Science*, vol.29, no.2, pp.431-439, March-April 1994.

108. I.V. Lindell, M.J. Flykt: Image theory for DC problems involving a conducting half space above an anisotropic impedance surface. *Radio Science*, vol.29, no.2, pp.441-450, March-April 1994.

109. I.V. Lindell, M.J. Flykt: Image theory for DC problems involving a conducting half space bounded by a perfect anisotropic impedance surface. *IEEE Transactions on Electromagnetic Compatibility*, vol.36, no.2, pp.92-96, May 1994.

110. I.V. Lindell, A.H. Sihvola: Singularity of Green dyadics for bi-isotropic media. *Electronics Letters* , vol.30, no.11, pp.843-844, May 1994. Errata, vol.30, no.20, p.1722, September 1994.

111. A.J. Viitanen, I.V. Lindell: Plane-wave propagation in the general anisotropic chiral medium with isotropic permittivity and permeability. *Microwave and Optical Technology Letters*, vol.7, no.8, pp.344-348, June 1994.

112. I.V. Lindell, K.I. Nikoskinen: Image method for electrostatic problems involving planar anisotropic media based on transmission-line analogy. *Archiv für Elektrotechnik*, vol.77, no.4, pp.251-257, 1994.

113. I.V. Lindell, W.S. Weiglhofer: Green dyadic and dipole fields for a medium with anisotropic chirality. *IEE Proceedings, part H*, vol.141, no.3, pp.211-215, June 1994.

114. I.V. Lindell, W.S. Weiglhofer: Green dyadic for a uniaxial bianisotropic medium. *IEEE Transactions on Antennas and Propagation*, vol.42, no.7, pp.1013-1016, July 1994.

115. I.V. Lindell: Electrostatic image theory for a sphere with impedance surface. *Journal of Physics D: Appl. Phys.*, vol.27, pp.1605-1607, 1994.

116. I.V. Lindell, A.H. Sihvola: Electromagnetostatics in uniaxial bianisotropic media. *Archiv für Elektronik und Übertragungstechnik*, vol.48, no.6, pp.344-347, 1994.

117. K.I. Nikoskinen, M.E. Ermutlu, I.V. Lindell: Transient image theory for 2D and 3D conducting wedge problems. *IEEE Transactions on Antennas and Propagation*, vol.42, no.11, pp.1515-1520, November 1994.

118. A.H. Sihvola, I.V. Lindell: Classification of bianisotropic media. *International Journal on Theoretical Electrotechnics*, no.5, pp.77-82, 1994.

119. I.V. Lindell, A.J. Viitanen: Eigenwaves in the general uniaxial bianisotropic medium with symmetric parameter dyadics. *Progress in Electromagnetics Research*, vol.9, pp.1-18, Cambridge: EMW Publishing, 1994.

120. I.V. Lindell: Image theory for the soft and hard surface. *IEEE Transactions on Antennas and Propagation*, vol.43, no.1, pp.117-119, January 1995.

121. I.V. Lindell, F. Olyslager: Duality transformations, Green dyadics and plane-wave solutions for a class of bianisotropic media. *Journal of Electromagnetic Waves and Applications*, vol.9, no.1/2, pp.85-96, 1995.

122. K.I. Nikoskinen, I.V. Lindell: Image solution for Poisson's equation in wedge geometry. *IEEE Transactions on Antennas and Propagation*, vol.43, no.2, pp.179-187, February 1995.

123. I.V. Lindell, A.H. Sihvola, P. Puska, L.H. Ruotanen: Conditions for the parameter dyadics of lossless bi-anisotropic media. *Microwave and Optical Technology Letters*, vol.8, no.5, pp. 268-272, April 1995.

124. J.C-E. Sten, I.V. Lindell: An electrostatic image solution for the conducting prolate spheroid. *Journal of Electromagnetic Waves and Applications*, vol.9, no.4, pp.599-609, 1995.

125. I.V. Lindell: Duality transformation for two-dimensional static problems. *IEEE Trans. Education*, vol.38, no.2,pp.195-197, May 1995.

126. I.V. Lindell, TE/TM decomposition of electromagnetic sources in uniaxial anisotropic media, *Microwave and Optical Technology Letters*, vol.9, no.2, pp.108-111, June 1995.

127. M.E. Ermutlu, K. Muinonen, K.A. Lumme, I.V. Lindell, A.H. Sihvola: Scattering by a small object close to an interface. III: Buried object. *Journal of the Optical Society of America A*, vol.12, no.6, pp.1310-1315, June 1995.

128. A.H. Sihvola, I.V. Lindell, Magnetoelectric properties of reciprocal bianisotropic materials with focus on the polarizability of chiro-omega spheres, *International Journal of Applied Electromagnetics and Mechanics*, vol.6, no.2, pp.113-130, June 1995.

129. I.V. Lindell, A.H. Sihvola, K. Suchy: Six-vector formalism in electromagnetics of bi-anisotropic media. *Journal of Electromagnetic Waves and Applications*, vol.9, no.7/8, pp.887-903, 1995.

130. F. Olyslager, B. Jacoby, I.V. Lindell: TE-TM source decomposition for general uniaxial bianisotropic media, *Microwave and Optical Technology Letters*, vol.9, no.6, pp.345-349, August 1995.

131. I.V. Lindell: Image theory for the unidirectionally conducting screen. *IEEE Transactions on Electromagnetic Compatibility*, vol.37, no.4, pp.463-465, August 1995.

132. A.H. Sihvola, I.V. Lindell: Material effects in bi-anisotropic electromagnetics, *IEICE Transactions on Electronics (Japan)*, vol.E78-C, no.10, pp.1383-1390, October 1995.

133. I.V. Lindell, A.H. Sihvola: Plane-wave reflection from uniaxial chiral interface and its application to polarization transformation. *IEEE Transactions on Antennas and Propagation*, vol.43, no.12, pp.1397-1404, December 1995.

134. I.V. Lindell, F. Olyslager: Decomposition of electromagnetic sources in axially chiral uniaxial anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.10, no.1, pp.51-59, 1996.

135. M.J. Flykt, E.H. Eloranta, K.I. Nikoskinen, I.V. Lindell, A.H. Sihvola: DC potential anomalies caused by a conducting body in an anisotropic conducting half space, *IEEE Transactions on Geoscience and Remote Sensing*, vol.34, no.1, pp.27-32, January 1996.

136. I.V. Lindell: Huygens' principle in electromagnetics. *IEE Proceedings Science, Measurement and Technology*, vol.143, no.2, March 1996, pp.103-105 (**This paper was awarded the Maxwell Premium of the IEE** in 1997).

137. P.P. Puska, I.V. Lindell, Direction differentiating cluster reflector for marine/air navigation, *Electronics Letters* , vol.32, no.8, pp.702-704, April 1996.

138. I.V. Lindell: Field decomposition in special gyrotropic media, *Microwave and Optical Technology Letters*, vol.12, no.1, pp.29-31, May 1996.

139. F. Olyslager, I.V. Lindell: Capacitance relations for a class of two-dimensional conductor configurations, *IEE Proceedings on Science, Measurement and Technology*, vol.143, no.5, pp.302-308, September 1996.

140. I.V. Lindell, P.P. Puska, K.I. Nikoskinen: Time-domain study of generalized transmission lines, *Journal of Physics D: Appl. Phys.*, vol.29, pp.2501-2506, 1996.

141. A.H. Sihvola, I.V. Lindell: Electrostatics of an anisotropic ellipsoid in an anisotropic environment, *Archiv für Elektronik und Übertragungstechnik*, vol.50, no.5, pp.289-292, 1996.

142. I.V. Lindell, P.P. Puska: Reflection dyadic for the soft and hard surface with application to the depolarizing corner reflector, *IEE Proceedings, Microwaves, Antennas and Propagation*, vol.143, no.5, pp.417-421, October 1996.

143. I.V. Lindell, K.I. Nikoskinen, M.J. Flykt: Electrostatic image theory for an anisotropic half-space slightly deviating from transverse isotropy, *Radio Science*, vol.31, pp.1361-1368, November-December 1996.

144. I.V. Lindell: Exact image theory for vertical electromagnetic sources above a slightly chiral half space, *Journal of Electromagnetic Waves and Applications*, vol.10, no.12, pp.1583-1594, 1996.

145. I.V. Lindell: Heaviside operational calculus in electromagnetic image theory, *Journal of Electromagnetic Waves and Applications*, vol.11, no.1, pp.119-132, 1997.

146. I.V. Lindell, M.P. Silverman: Plane-wave scattering from a nonchiral object in a chiral environment, *Journal of the Optical Society of America A*, vol.14, no.1, pp.79-90, January 1997.

147. I.V. Lindell, A.H. Sihvola: Duality transformation for nonreciprocal and nonsymmetric transmission lines, *IEEE Transactions on Microwave Theory and Techniques*, vol.45, no.1, pp.129-131, January 1997.

148. I.V. Lindell, K. Heiska: Simple image theory for the rough interface of two isotropic media, *Microwave and Optical Technology Letters*, vol.14, no.6, pp.333-337, April 1997.

149. I.V. Lindell: Decomposition of electromagnetic fields in bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.11, no.5, pp.645-657, 1997.

150. L.H. Ruotanen, I.V. Lindell: Image theory for a chiral half space, *Electromagnetics*, vol.11, pp.361-368, 1997.

151. I.V. Lindell, K.I. Nikoskinen, A. Viljanen: Electrostatic image method for the anisotropic half space, *IEE Proceedings, Science, Measurement & Technology*, vol.144, no.4, July 1997, pp.156-163. (**This paper was awarded the Maxwell Premium of the IEE** in 1998).

152. I.V. Lindell, F. Olyslager: Analytic Green dyadic for a class of nonreciprocal anisotropic media, *IEEE Transactions on Antennas and Propagation*, vol.45, no.10, pp.1563-1565, October 1997.

153. I.V. Lindell: Charge density on a conducting ellipsoid and an elliptic disk, *American Journal of Physics*, vol.65, no.10, pp.1113-1114, November 1997.

154. L.H. Ruotanen, I.V. Lindell: Exact image theory for horizontal sources above a slightly chiral

half space, *Journal of Electromagnetic Waves and Applications*, vol.11, no.12, pp.1749-1762, 1997.

155. A.H. Sihvola, G. Kristensson, I.V. Lindell: Non-radiating sources in time-domain transmission-line theory, *IEEE Transactions on Microwave Theory and Techniques*, vol.45, no.12, pp.2155-2159, December 1997.

156. A. Sihvola, I.V. Lindell: Electromagnetic Green dyadics of bi-anisotropic media in spectral domain - the six-vector approach, *Electromagnetic Waves and Electronic Systems*, vol.2, no.1, pp.26-33, 1997.

157. F. Olyslager, I.V. Lindell: Green's dyadics for a class of bi-anisotropic media with similar medium dyadics, *Microwave and Optical Technology Letters*, vol.17, no.1, pp.45-47, January 1998. Reply to comments by W.S. Weiglhofer, *ibid.*, vol.18, no.6, p.440, 1998.

158. I.V. Lindell, F. Olyslager: Electromagnetic source decomposition in bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.12, no.1, pp.1-21, 1998.

159. P.P. Puska, I.V. Lindell: Image theory for reflected TE/TM waves in a waveguide, *IEEE Transactions on Microwave Theory and Techniques*, vol.46, no.1, pp.55-61, January 1998.

160. F. Olyslager, I.V. Lindell: Green's dyadics for a class of bi-anisotropic media with nonsymmetric bi-anisotropic dyadics, *Archiv für Elektronik und Übertragungstechnik*, vol.52, no.1, pp.32-36, 1998.

161. I.V. Lindell, F. Olyslager: TE/TM decomposition of electromagnetic sources in a nonreciprocal anisotropic medium, *IEE Proceedings, Microwaves, Antennas and Propagation*, vol.145, no.1, pp.109-115, February 1998.

162. I.V. Lindell, A.H. Sihvola: The quotient function and its applications, *Americal Journal of Physics*, vol.66, no.3, pp.197-202, March 1998.

163. I.V. Lindell, F. Olyslager: Factorization of the Helmholtz determinant operator for anisotropic media, *Archiv für Elektronik und Übertragungstechnik*, vol.52, no.4, pp.261-267, July 1998.

164. I.V. Lindell, F. Olyslager: TE/TM decomposition of the Green dyadic in uniaxial anisotropic media, *Electromagnetics*, vol.18, no.4, pp.383-394, July-August 1998.

165. I.V. Lindell: Heaviside operational method for delta function sequences, *Journal of Electromagnetic Waves and Applications*, vol.12, no.7, pp.913-927, 1998.

166. I.V. Lindell, L.H. Ruotanen: Duality transformations and Green dyadics in bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.12, no.9, pp.1131-1152, 1998.

167. A.J. Viitanen, I.V. Lindell: Chiral slab depolarizer for aperture antennas, *IEEE Transactions on Antennas and Propagation*, vol.46, no.9, pp.1395-1397, September 1998.

168. I.V. Lindell, F. Olyslager: Green dyadic for a class of bi-anisotropic media, *Microwave and Optical Technology Letters*, vol.19, no.3, pp.216-221, October 1998.

169. I.V. Lindell, F. Olyslager: Generalized decomposition of electromagnetic fields in bi-anisotropic media, *IEEE Transactions on Antennas and Propagation*, vol.46, no.10, pp.1584-1585, October 1998.

170. F. Olyslager, I.V. Lindell: Closed-form Green's dyadics for a class of bi-anisotropic media with axial bi-anisotropy, *IEEE Transactions on Antennas and Propagation*, vol.46, no.12, pp.1888-1890, December 1998.

171. I.V. Lindell, M.J. Flykt: Comment on 'The modelling of direct current electric potential in an arbitrarily anisotropic half-space containing a conductive 3-D body' by Ping Li and Norm F. Uren, *Journal of Applied Geophysics*, vol.41, no.1, pp.131-132, February 1999.

172. I.V. Lindell, F. Olyslager: Factorization of Helmholtz determinant operator for decomposable bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.13, no.4, pp.429-444, 1999.

173. I.V. Lindell, K.I. Nikoskinen: Two-dimensional image method for time-harmonic line current in front of a material cylinder, *Electrical Engineering*, vol.81, no.6, pp.357-362, April 1999.

174. I.V. Lindell, K.I. Nikoskinen: Two-dimensional image method for time-harmonic line current in front of a PEC cylinder, *Microwave and Optical Technology Letters*, vol.21, no.3, pp.217-222, May 5 1999.

175. F. Olyslager, I.V. Lindell: Green's dyadics and factorization of the Helmholtz determinant operator for a class of bi-anisotropic media, *Microwave and Optical Technology Letters*, vol.21, no.4, pp.304-309, May 20 1999.

176. I.V. Lindell, L.H. Puska, F. Olyslager: Plane wave in a decomposable bi-anisotropic medium, *Journal of Electromagnetic Waves and Applications*, vol.13, no.10, pp.1377-1391, 1999.

177. I.V. Lindell, F. Olyslager, L.H. Ruotanen: Electromagnetic field and source decomposition in a class of linear media, in *International Seminar Day of Diffraction 99*, eds. V.S. Buldyrev et al., St Petersburg 1999, pp.129-136.

178. L.H. Puska, I.V. Lindell: Electromagnetic source decomposition for generalized decomposable bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.13, no.11, pp.1477-1491, 1999.

179. I.V. Lindell, K.I. Nikoskinen, "Theory of complex transmission lines," in *Festskrift till Staffan Ström*, eds. A. Karlsson and G. Kristensson, Published by KF Sigma AB, pp. 121-127, Lund 1999.

180. L.H. Puska, I.V. Lindell: Plane-wave propagation in decomposable bi-anisotropic media, *Electromagnetics*, vol.20, no.1, pp.43-54, 2000.

181. I.V. Lindell, B. Jancewicz: The Maxwell stress dyadic in differential-form formalism, *IEE Proc. Sci. Meas. Tech.*, vol.147, no.1, pp.19-26, 2000.

182. I.V. Lindell, B. Jancewicz: Electromagnetic boundary conditions in differential-form formalism, *European J. of Physics*, vol.21, pp.83-89, 2000.

183. I.V. Lindell, F. Olyslager: Green dyadics for the self-dual bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.14, pp.153-163, 2000.

184. I.V. Lindell: Heaviside operational calculus and electromagnetic image theory, in *Light Scattering from Microstructures, Lecture Notes in Physics*, eds. F. Moreno and F. Gonzales, Berlin: Springer, 2000, pp.23-39.

185. F. Olyslager, I.V. Lindell: Field and source decomposition and Green dyadics for a class of nonreciprocal bi-anisotropic media, *Radio Science*, vol.35, no.2, pp.411-415, March-April 2000.

186. I.V. Lindell: Heaviside operational rules applicable to electromagnetic problems, *Progress in Electromagnetics Research* 26, pp.293-331, 2000. Abstract in *Journal of Electromagnetic Waves and Applications*, vol.14, no.4, pp.497-498, 2000.

187. I.V. Lindell, S.A Tretyakov, K.I. Nikoskinen: Extended electromagnetic continuity condition and generalized Huygens' principle, *Electromagnetics*, vol.20, no.3, pp.233-242, May/June 2000.

188. I.V. Lindell, J. Hänninen: Static image principle for sphere in isotropic and bi-isotropic space, *Radio Science*, vol.35, no.3, May-June 2000, pp.653-660.

189. F. Olyslager, I.V. Lindell, L.H. Puska: Factorization and Green dyadics for a new class of bi-anisotropic media using duality, *Journal of Electromagnetic Waves and Applications*, vol.14, no.6, 2000, pp.745-762.

190. I.V. Lindell, Condition for the general ideal boundary, *Microwave and Optical Technology Letters*, vol.26, no.1, July 2000, pp.61-64.

191. I.V. Lindell: Image theory for the isotropic ideal boundary, *Microwave and Optical Technology Letters*, vol.27, no.1, pp.68-72, October 2000.

192. I.V. Lindell, G. Dassios: Generalized Helmholtz decomposition and static electromagnetics, *Journal of Electromagnetic Waves and Applications*, vol.14, no.10, pp.1415-1428, 2000.

193. I.V. Lindell, J. Hänninen, R. Pirjola: Wait's complex-image principle generalized to arbitrary sources, *IEEE Transactions on Antennas and Propagation*, vol.48, no.10, pp.1618-1625, October 2000.

194. I.V. Lindell: The radiation operator, *IEEE Transactions on Antennas and Propagation*, vol.48, no.11, pp.1701-1707, November 2000.

195. I.V. Lindell, F. Olyslager: Polynomial operators and Green functions, *Progress in Electromagnetics Research*, vol.30, pp.59-84, 2001. Abstract in *Journal of Electromagnetic Waves and Applications*, vol.14, no.8, pp.1141-1142, 2000.

196. I.V. Lindell, A.P. Kiselev: Polyadic methods in elastodynamics, *Progress in Electromagnetics Research*, vol.31, pp.113-154, 2001. Abstract in *Journal of Electromagnetic Waves and Applications*, vol.14, no.12, pp.1627-1628, 2000.

197. I.V. Lindell, F. Olyslager: Duality in electromagnetics, *Journal of Communications Technology and Electronics*, vol.45, supplementary issue 2, pp. 260-268, October-November 2000.

198. A.J. Viitanen, S.A. Tretyakov, I.V. Lindell: On the realization of the generalized soft-and-hard surface, *Radio Science*, vol.35, no.6, pp.1257-1264, November-December 2000.

199. I.V. Lindell: Potential representation of electromagnetic fields in decomposable anisotropic media, *Journal of Physics D: Appl. Phys.*, vol.33, no.24, pp.3169-3172, December 2000.

200. I.V. Lindell: The ideal boundary and generalized soft-and-hard conditions, *IEE Proceedings, Microwaves, Antennas and Propagation*, vol.147, no.6, pp.495-499, December 2000.

201. I.V. Lindell, F. Olyslager: Potentials in bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.15, no.1, pp.3-18, 2001.

202. F. Olyslager, I.V. Lindell: Field decomposition and factorization of Helmholtz determinant operator for bianisotropic media, *IEEE Transactions on Antennas and Propagation*, vol.49, no.4, April 2001, pp.660-665.

203. I.V. Lindell, F.M. Dahl: Conditions for the parameter dyadics of lossy bi-anisotropic media, *Microwave and Optical Technology Letters*, vol.29, no.3, May 2001, pp.175-178.

204. I.V. Lindell: Image theory for electromagnetic sources in chiral medium above the soft and hard boundary, *IEEE Transactions on Antennas and Propagation*, vol.49, no.7, July 2001, pp.1065-1068.

205. I.V. Lindell, G. Dassios, K.I. Nikoskinen: Electrostatic image theory for the prolate conducting spheroid, *Journal of Physics D: Appl. Phys.*, vol.34, pp.2302-2307, 2001.

206. I.V. Lindell, K.I. Nikoskinen: Electrostatic image theory for the dielectric prolate spheroid, *Journal of Electromagnetic Waves and Applications*, vol.15, no.8, pp.1075-1096, 2001.

207. I.V. Lindell, G. Dassios: The Helmholtz theorem and scalar potential expansion, *Journal of Electromagnetic Waves and Applications*, vol.15, no.9, pp.1281-1295, 2001.

208. I.V. Lindell, S.A. Tretyakov, K.I. Nikoskinen, S. Ilvonen: BW media – media with negative parameters, capable of supporting backward waves, *Microwave and Optical Technology Letters*, vol.31, no.2, October 2001, pp.129-133.

209. G. Dassios, I.V. Lindell: On the Helmholtz decomposition for polyadics *Quarterly of Applied Mathematics*, vol.59, no.4, pp.787-796, December 2001.

210. I.V. Lindell, S. Ilvonen: Waves in a slab of uniaxial BW medium, *Journal of Electromagnetic Waves and Applications*, vol.16, no.3, pp.303-318, 2002.

211. F. Olyslager, I.V. Lindell: Electromagnetics and exotic media — a quest to the Holy Grail, *IEEE Antennas and Propagation Magazine*, vol.44, no.2, pp.48-58, April 2002 (invited paper).

212. G. Dassios, I.V. Lindell: Uniqueness and reconstruction for the anisotropic Helmholtz decomposition, *Journal of Physics A*, vol.35, pp.5139-5146, 2002.

213. I.V. Lindell: Generalized soft-and-hard surface, *IEEE Transactions on Antennas and Propagation*, vol.50, no.7, pp.926-929, July 2002.

214. F. Olyslager, I.V. Lindell: Green's dyadics for bianisotropic media, in *Review of Radio Science 1999-2002*, ed. W. Ross Stone, New York: Wiley 2002, pp.145-164, (invited article).

215. J.J. Hänninen, R.J. Pirjola, I.V. Lindell: Applications of the exact image theory to studies of ground effects of space weather, *Geophysical Journal International*, vol.151, pp.534-542, 2002.

216. I.V. Lindell, F. Olyslager: Antisymmetric six-dyadics and bi-anisotropic media, *Journal of Electromagnetic Waves and Applications*, vol.16, no.10, pp.1347-1369, 2002.

217. I.V. Lindell, K.H. Wallen: Wave equations for bi-anisotropic media in differential forms, *Journal of Electromagnetic Waves and Applications*, vol.16, no.11, pp.1615-1635, 2002.

218. I.V. Lindell, G. Dassios: Helmholtz theorem for multiform fields, *Journal of Electromagnetic Waves and Applications*, vol.17, no.1, pp.3-14, 2003.

219. F. Olyslager, I.V. Lindell: Decomposable bianisotropic media: factorization, equivalent media, Green dyadics, Hertz potentials, *Radio Science*, vol.38, no.2, pp.21.1-21.10, 2003.

220. F. Olyslager, I.V. Lindell, "Closed form solutions of Maxwell's equations in the computer age," *URSI Radio Science Bulletin*, no.305, pp.30-37, June 2003.

221. I.V. Lindell, K.I. Nikoskinen: Electrostatic image theory for the dielectric prolate spheroid, reply to comments by D. Redzic, *Journal of Electromagnetic Waves and Applications*, vol.17, no.11, pp.1629-1630, 2003.

222. I.V. Lindell, K.H. Wallén, A.H. Sihvola: Electrostatic image theory for two intersecting conducting spheres, *Journal of Electromagnetic Waves and Applications*, vol.17, no.11, pp.1643-1660, 2003.

223. I.V. Lindell, J.J. Hänninen, K.I. Nikoskinen: Electrostatic image theory for an anisotropic boundary, *IEE Proc. Science, Meas. Tech.*, vol.151, no.3, pp.188-194, May 2004.

224. I.V. Lindell, K.H. Wallén: Differential-form electromagnetics and bi-anisotropic Q-media, *Journal of Electromagnetic Waves and Applications*, vol.18, no.7, pp.957-968, 2004.

225. J.J. Hänninen, I.V. Lindell, K.I. Nikoskinen: Electrostatic image theory for an anisotropic boundary of an anisotropic half-space, *Progress in Electromagnetics Research*, vol.47, pp.235-262, 2004.

226. I.V. Lindell, K.H. Wallén: Generalized Q-media and field decomposition in differential-form approach, *Journal of Electromagnetic Waves and Applications*, vol.18, no.8, pp.1045-1056, 2004.

227. I.V. Lindell: Affine transformations and bi-anisotropic media in differential-form approach, *Journal of Electromagnetic Waves and Applications*, vol. 18, no.9, pp.1259-1273, 2004.

228. J.J. Hänninen, K.I. Nikoskinen, I.V. Lindell: Electrostatic image theory for two anisotropic half-spaces, *Electrical Engineering*. Published offline September 2004, in print: vol.88, no.1, pp.1-12, November 2005.

229. I.V. Lindell: The electromagnetic image method, in *Advances in Scattering and Biomedical Engineering*, eds. D.I. Fotiadis and C.V. Massalas, Singapore: World Scientific, 2004, pp. 332-345.

230. I.V. Lindell: Image theory for a vertical dipole above Veselago medium half space, *Microwave and Optical Technology Letters*, vol.44, no.2, pp.185-190, January 2005.

231. I.V. Lindell, A.H. Sihvola: Perfect electromagnetic conductor, *Journal of Electromagnetic Waves and Applications*, vol.19, no.7, pp.861-869, 2005. Also: `arXiv:physics/0503232`.

232. I.V. Lindell: Electromagnetic wave equation in differential-form representation, *Progress in Electromagnetics Research* 54, pp.321-333, 2005.

233. I.V. Lindell: Evolution of Electromagnetics in the 19th Century, *Advances in Radio Science*, vol.3, pp.23-25, 2005.

234. I.V. Lindell, A.H. Sihvola: Transformation method for problems involving perfect electromagnetic conductor (PEMC) structures, *IEEE Trans. Antennas Propag.*, vol.53, no.9, pp.3005-3011, September 2005.

235. I.V. Lindell, A.H. Sihvola: Realization of the PEMC boundary, *IEEE Trans. Antennas Propag.*, vol.53, no.9, pp.3012-3018, September 2005.

236. I.V. Lindell: The class of bi-anisotropic IB media, *Progress in Electromagnetics Research*, vol.57, pp.1-18, 2006.

237. I.V. Lindell: Evolution of Electromagnetics in the 19th Century, *History of Wireless*, eds. T.K. Sarkar et al, New York: Wiley 2006, Chapter 3 pp.165–188.

238. I.V. Lindell: Wireless before Marconi, *History of Wireless*, eds. T.K. Sarkar et al, New York: Wiley 2006, Chapter 7 pp.247–266.

239. I.V. Lindell: Electromagnetic fields and self-dual media in differential-form representation, *Progress in Electromagnetics Research*, vol.58, pp.319-333, 2006.

240. I.V. Lindell, A.H. Sihvola: Negative-definite media, a class of bi-anisotropic metamaterials, *Microwave and Optical Technology Letters*, vol.48, no.3, pp.602-608, March 2006.

241. I.V. Lindell, A. Sihvola: Electromagnetostatic image theory for the PEMC sphere, *IEE Proceedings on Science, Measurement and Technology*, vol.153, no.3, pp.120-124, May 2006.

242. I.V. Lindell: Differential forms and bi-anisotropic media, *Electromagnetics*, vol.26, pp.191–201, 2006.

243. A.H. Sihvola, I.V. Lindell: Perfect electromagnetic conductor as building block for complex materials, *Electromagnetics*, vol.26, pp.279–287, 2006.

244. I.V. Lindell, A.H. Sihvola: The PEMC resonator, *Journal of Electromagnetic Waves and Applications*, vol.20, no.7, pp.849–859, 2006.

245. I.V. Lindell, A.H. Sihvola: Losses in the PEMC boundary, *IEEE Transactions on Antennas and Propagation*, vol.54, no.9, pp.2553–2558, September 2006.

246. I.V. Lindell: Inverse for the skewon medium dyadic, *Progress in Electromagnetics Research*, vol.63, pp.21–32, 2006.

247. I. Hänninen, I.V. Lindell, A.H. Sihvola: Realization of generalized soft-and-hard boundary, *Progress in Electromagnetics Research*, vol.64, pp.317–333, 2006.

248. I.V. Lindell, A.H. Sihvola: Realization of impedance boundary, *IEEE Transactions on Antennas and Propagation*, vol.54, no.12, December 2006, pp.3669–3676.

249. I.V. Lindell, A.H. Sihvola, I. Hänninen: Perfectly anisotropic impedance boundary, *IET Microw. Antennas Propag.*, vol.1, no.3, pp.561–566, June 2007.

250. A.H. Sihvola, P. Ylä-Oijala, I.V. Lindell: Scattering by perfect electromagnetic conductor (PEMC) spheres: surface integral equation approach, *ACES Journal*, vol.22, no.2, pp.236–249, July 2007.

251. I.V. Lindell, A.H. Sihvola: Reflection and transmission of waves at the interface of perfect electromagnetic conductor (PEMC), *PIER B*, vol.5, pp.169-183, 2008.

252. I.V. Lindell: Class of electromagnetic SD media, *Metamaterials*, vol.2, no.2-3, pp.54–70, September 2008.

253. A. Sihvola, I. V. Lindell: Perfect electromagnetic conductor medium. *Ann. Phys.* (Berlin) vol.17, pp.787–802, September/October 2008.

254. I.V. Lindell: Class of bi-quadratic (BQ) electromagnetic media, *PIER B*, vol.7, pp.281–297, 2008.

255. I.V. Lindell, A. Sihvola: Zero axial parameter (ZAP) sheet, *PIER*, vol.89, pp.213–224, 2009.

256. I.V. Lindell, A. Sihvola: Spherical resonator with DB-boundary conditions, *PIER Letters*, Vol. 6, 131-137, 2009.

257. I.V. Lindell, A. Sihvola: Electromagnetic boundary condition and its realization with anisotropic metamaterial, *Phys. Rev. E*, vol.79, no.2, 026604 (7 pages), 2009.

258. I.V. Lindell, A. Sihvola: Uniaxial IB-medium interface and novel boundary conditions, *IEEE Trans. Antennas Propagat.*, vol.57, no.3, pp.694–700, March 2009.

259. I.V. Lindell, A. Sihvola: Electromagnetic boundary conditions defined in terms of normal field components, ArXiv:0904.2951v1, 20 April 2009 and *IEEE Trans. Antennas Propagat.*, vol.58, no.4, pp.1128–1135, April 2010.

260. A. Sihvola, H. Wallén, M. Taskinen, P. Ylä-Oijala, H. Kettunen, I.V. Lindell: Scattering by DB spheres, *IEEE Antennas Wireless Propag. Lett.*, vol.8, pp.542–545, June 24, 2009.

261. I.V. Lindell, H. Wallén, A. Sihvola: General electromagnetic boundary conditions involving normal field components, *IEEE Antennas Wireless Propag. Lett.*, vol.8, pp.877–880, August 11, 2009.

262. I.V. Lindell, A. Sihvola, P. Ylä-Oijala, H. Wallén: Zero backscattering from self-dual objects of finite size, *IEEE Trans. Antennas Propag.*, vol.57, no.9, pp.2725–2731, September 2009.

263. I.V. Lindell: Differential forms and electromagnetic materials, Chapter 4 in *Metamaterials Handbook, Theory and Phenomena of Metamaterials*, Boca Raton: CRC Press, pp.4.1–4.16, 2009.

264. A. Sihvola, I.V. Lindell: Bianisotropic materials and PEMC, Chapter 26 in *Metamaterials Handbook, Theory and Phenomena of Metamaterials*, Boca Raton: CRC Press, pp.26.1–26.7, 2009.

265. I.V. Lindell, A. Sihvola: Circular waveguide with DB-boundary conditions, *IEEE Trans. Microwave Theory Tech.*, vol.58, no.4, pp.903–909, April 2010.

266. A. Sihvola, J. Qi, I.V. Lindell: Bridging the Gap Between Plasmonics and Zenneck Waves, *IEEE Antennas Propag. Mag.*, vol.52, no.1, pp.125–136, February 2010.

267. I.V. Lindell: Class of Electromagnetic SQ-media, *PIER*, vol.110, pp.371–382, 2010.

268. A. Sihvola, I.V. Lindell, H. Wallén, P. Ylä-Oijala: Material realizations of perfect electromagnetic conductor objects, *ACES Journal*, vol.25, no.12, pp.1007–1016, 2010.

269. I.V. Lindell, L. Bergamin, A. Favaro: Decomposable medium condition in four-dimensional representation, *IEEE Trans. Antennas Propag.*, vol.60, no.1, January 2012, pp.367–376. Also: `arXiv:11015247v1 [math-ph]` January 2011.

270. I.V. Lindell, L. Bergamin, A. Favaro: The class of electromagnetic P-media and its generalization, *PIER B*, vol.28, pp.143–162, 2011.

271. I.V. Lindell, A. Sihvola, L. Bergamin, A. Favaro: Realization of the D'B' boundary condition, *IEEE Antennas Wireless Propag. Lett.*, vol.10, pp.643–646, July 5, 2011. Also: `arXiv:11033931v1 [ph]`, March 2011.

272. H. Wallén, I.V. Lindell, A. Sihvola: Mixed-Impedance Boundary Conditions, *IEEE Trans. Antennas Propag.*, vol.59, no.5, pp.1580–1586, May 2011.

273. I.V. Lindell, J. Markkanen, A. Sihvola, P. Ylä-Oijala, "Realization of spherical D'B' boundary by a layer of wave-guiding medium;" *Metamaterials*, vol.5, pp.149–154, 2011. Also: arXiv:1104.3495v1 [ph], April 2011.

274. I.V. Lindell, A. Sihvola, "Simple skewon medium realization of DB boundary condition," *PIER Letters*, vol.30, pp.29–39, 2012.

275. I.V. Lindell, A. Sihvola, "Skewon-axion medium and soft-and-hard/DB boundary condition," arXiv:1201.4738v1 [physics.class-ph] 20 Jan 2012.

276. I.V. Lindell, A. Sihvola, "Soft-and-hard/D'B' boundary conditions and their realization by electromagnetic media," arXiv:1204.3525v1 [physics.class-ph] 12 Apr 2012; *IEEE Trans. Antennas Propag.*, vol.61, no.1, pp.478–482, January 2013.

277. I.V. Lindell, A. Sihvola, "Soft-and-hard/DB boundary conditions realized by a skewon-axion medium," *IEEE Trans. Antennas Propag.*, vol.61, no.2, pp.768–774, February 2013.

278. I.V. Lindell, A. Favaro, "Electromagnetic media with no dispersion equation," arXiv:1303.5535v2 [math-ph], 25 Mar 2013 and *PIER B*, vol.51, pp.269–289, 2013.

279. I.V. Lindell, A. Sihvola, "SHDB Boundary Conditions Realized by Pseudochiral Media," *IEEE Antennas Wave Propag. Lett.*, vol.12, pp.591–594, 2013.

International Conferences

1. I.V. Lindell: On the theory of wave front propagation in bianisotropic media. *Conference on Plasma Waves, Instabilities and Interactions*, Spåtind, Norway, April 1972, post-deadline paper.

2. I.V. Lindell: Variational methods for nonstandard eigenvalue problems in electromagnetics, *U.S. National Committee of URSI, Radio Science Meeting*, Albuquerque, New Mexico, May 1982, p.37.

3. I.V. Lindell: Variational methods for nonstandard eigenvalue problems in microwave field analysis, *IEEE Microwave Theory and Techniques Symposium*, Dallas Texas, June 1982, pp.302-304.

4. I.V. Lindell, A.H. Sihvola: Variational analysis of a dielectrically loaded corrugated waveguide, *European Microwave Conference*, Helsinki, September 1982, pp.312-316.

5. I.V. Lindell, M.I. Oksanen: Asymptotic theory of anisotropic optical fibers, *U.S. National Committee of URSI, Radio Science Meeting*, Houston, Texas, June 1983, p.106.

6. I.V. Lindell, M.I. Oksanen: Variational analysis of anisotropic optical fibers, *URSI Symposium on Electromagnetic Theory*, Santiago de Compostela, Spain, August 1983, pp.581-584.

7. I.V. Lindell, E. Alanen: Exact image theory for the Sommerfeld half-space problem with a vertical magnetic dipole, *European Microwave Conference*, Nürnberg, FRG, September 1983, pp.727-732.

8. I.V. Lindell, M.I. Oksanen: Variational method for anisotropic dielectric waveguides, *European Microwave Conference*, Nürnberg, FRG, September 1983, pp.419-427.

9. I.V. Lindell, E. Alanen: Image principle in the Sommerfeld problem. *Popov Radio Meeting*, Moscow, USSR, May 1984, post-deadline paper.

10. I.V. Lindell, V.P. Akimov, E. Alanen: Image of a vertical electric dipole above a metallic grid, *U.S. National Committee of URSI, Radio Science Meeting*, Boston, Massachusetts, June 1984, p.7.

11. I.V. Lindell, E. Alanen: Exact image sources for the Sommerfeld problem, *U.S. National Committee of URSI, Radio Science Meeting*, Boston, Massachusetts, June 1984, p.8.

12. E. Alanen, I.V. Lindell, P. Vainikainen: The near field of a rectangular aperture antenna in detecting breast cancer, *URSI General Assembly, open symposium on electromagnetic fields in biological systems*, Firenze, Italy, August 1984, p.73.

13. I.V. Lindell, E. Alanen, K. Mannersalo: Image method of antenna analysis in the presence of the ground, *JINA'84, Journeés Internationales de Nice sur les Antennes*, Nizza, France, November 1984, pp.47-51.

14. E. Alanen, I.V. Lindell: Exact image theory for field calculation in layered biological medium, *IEEE Microwave Theory and Techniques Symposium*, St.Louis, Missouri, June 1985, pp.78-81.

15. I.V. Lindell, E. Alanen, K. Mannersalo: Application of exact image theory in analysis of antennas above the ground, *North American Radio Science Meeting*, Vancouver, Canada, June 1985, p.106.

16. I.V. Lindell, E. Alanen: Extension of exact image theory to problems involving transmission through interfaces and layered media, *North American Radio Science Meeting*, Vancouver, Canada, June 1985, p.107.

17. I.V. Lindell, E. Alanen, H. von Bagh: Image calculation of fields from arbitrary sources transmitted into the ground, *International Symposium on Antennas and Propagation*, Kyoto, Japan, August 1985, pp.241-244.

18. I.V. Lindell, E. Alanen, K. Mannersalo: Exact image computation of antennas above the ground, *International Symposium on Antennas and Electromagnetic Theory*, Beijing, PRC, August 1985, pp.312-317.

19. I.V. Lindell, E. Alanen: Applications of exact image theory in antenna and field calculations in the presence of dissipative half space, *European Microwave Conference*, Paris, France, September 1985, pp.427-432.

20. I.V. Lindell, E. Alanen: Exact image computation of antenna and radiation problems involving the effect of the ground, *MELECON*, Madrid, Spain, October 1985, pp.285-288.

21. I.V. Lindell, K.I. Nikoskinen: Dipole-at-a-complex-point approximation of small and medium sized sources and dielectric scatterers, *U.S. National Committee of URSI, Radio Science Meeting*, Philadelphia, Pennsylvania, June 1986, p.104.

22. E. Alanen, I.V. Lindell: The design of microstrip antenna for the detection of breast cancer with radiometer, *Thermomedica 86*, Graz Austria, September 1986, p.98.

23. I.V. Lindell, K.I. Nikoskinen: Complex space multipole theory for scattering problems, *URSI International Symposium on Electromagnetic Theory*, Budapest, Hungary, August 1986, pp.509-511.

24. E. Alanen, I.V. Lindell: Exact image method of field calculation in layered medium using the Mittag-Leffler expansion, *URSI International Symposium on Electromagnetic Theory*, Budapest, Hungary, August 1986, pp.518-520.

25. I.V. Lindell, K.I. Nikoskinen, E. Alanen, K. Mannersalo: Moment iteration method (MIM) for electromagnetic problems involving large bodies, *URSI International Symposium on Electromagnetic Theory*, Budapest, Hungary, August 1986, pp.577-579.

26. I.V. Lindell, E. Alanen, A.T. Hujanen: Exact image theory for microstrip geometry. *U.S. National Committee of URSI, Radio Science Meeting*, Boulder, Colorado, January 1987, p.227.

27. M.I. Oksanen, I.V. Lindell: Variational analysis of anisotropic graded-index optical fibers. *MIOP'87 Mikrowellentechnologie und Optoelektronik*, Wiesbaden, FRG, May 1987, paper 9A-4.

28. I.V. Lindell: Source decomposition in TE and TM radiating parts. *U.S. National Committee of URSI, Radio Science Meeting*, Blacksburg, Virginia, June 1987, p.98.

29. I.V. Lindell, E. Alanen: Exact image method in electromagnetic theory. *URSI General Assembly*, Tel Aviv, Israel, August 1987, p.243.

30. M.I. Oksanen, I.V. Lindell: A curved anisotropic waveguide: variational study of a nonstandard eigenproblem. *European Microwave Conference*, Rome, Italy, September 1987, pp.407-412.

31. M.I. Oksanen, I.V. Lindell: Variational method for the curved anisotropic optical fiber. *MIOP'88*, Wiesbaden, March 1988, p.17.

32. I.V. Lindell: Exact image sources for the dielectric slab geometry. *IEEE/URSI Symposium*, Syracuse, July 1988, p.41.

33. A.H. Sihvola, I.V. Lindell: Solution for the effective permittivity of mixtures with multilayer scatterers by transmission line approach. *IEEE/URSI Symposium*, Syracuse, July 1988, pp.388-391.

34. A.H. Sihvola, I.V. Lindell: Effective permittivity of mixtures with inhomogeneous scatterers: continuous radial permittivity profile. *IEEE/URSI Symposium*, Syracuse, July 1988, p.97.

35. I.V. Lindell, K.I. Nikoskinen, A.T. Hujanen: Exact Green functions for microstrip analysis. *European Microwave Conference*, Stockholm September 1988, pp.1063-1068.

36. A. Sihvola, I.V. Lindell: Effective permittivity in microwave remote sensing problems: media as mixtures with scatterers of Gaussian packets. *European Microwave Conference*, Stockholm September 1988, pp.693-698.

37. I.V. Lindell, K.I. Nikoskinen, E. Alanen, A.T. Hujanen: Exact image method for microstrip structures. *COST 213/KUL Phase Array Workshop*, Leuven, Belgium October 1988, pp.19-29.

38. I.V. Lindell, K.I. Nikoskinen, A.T. Hujanen: Microstrip antenna analysis through scalar Green functions, *JINA'88, Journees Internationales de Nice sur les Antennes*, Nice October 1988, pp.295-299.

39. K.I. Nikoskinen, I.V. Lindell: Novel time-domain analysis of dielectric interface problems based on the exact image theory, *JINA'88, Journees Internationales de Nice sur les Antennes*, Nice October 1988, pp.105-109.

40. K.I. Nikoskinen, I.V. Lindell: Time-domain field analysis for vertical dipole sources above dielectric interface. *URSI National Radio Science Meeting* Boulder, USA. January 1989, p.170.

41. I.V.Lindell: Time-Domain TE-TM decomposition of electromagnetic sources. *IEEE/URSI Symposium*, San Jose, June 1989, p.8.

42. M.I. Oksanen, I.V.Lindell: Nonstandard variational analysis of waveguides with impedance boundaries. *IEEE/URSI Symposium*, San Jose, June 1989, p.65.

43. I.V. Lindell, A.J. Viitanen, A.H. Sihvola: Exact image theory for uniaxially anisotropic dielectric half space. *Progress in Electromagnetics Research Symposium* , Boston July 1989, pp.311-312.

44. A.H. Sihvola, I.V. Lindell: Polarizability and effective permittivity of layered spheroids. *Progress in Electromagnetics Research Symposium* , Boston July 1989, pp.432-433.

45. A.H. Sihvola, I.V. Lindell, S. Karhu: Permeability modeling of composite materials. *Progress in Electromagnetics Research Symposium* , Boston July 1989, pp.428-429.

46. A.H. Sihvola, I.V. Lindell: Remote sensing of random media with ellipsoidal inhomogeneities. *IGARSS'89*, Vancouver July 1989, pp.929-931.

47. A. Sihvola, I.V. Lindell: Transmission-line analogy for calculating the fields of a multilayer ellipsoid, *ISAE 1989*, Shanghai, August 1989, pp.369-372.

48. I.V. Lindell, A.J. Viitanen, A.H. Sihvola: Exact image theory for uniaxially anisotropic dielectric half space. *URSI Symposium on Electromagnetic Theory*, Stockholm, September 1989, pp.280-282.

49. K.I. Nikoskinen, I.V. Lindell: Time-domain field solution of Sommerfeld problem based on the exact image theory. *URSI Symposium on Electromagnetic Theory*, Stockholm, September 1989, pp.479-481.

50. I.V. Lindell, A.H. Sihvola, A.J. Viitanen, S.A. Tretyakov: Geometrical optics in inhomogeneous chiral media for applications in polarization rotating microwave lenses. *European Microwave Conference*, London, September 1989, pp.534-539.

51. I.V. Lindell, A.H. Sihvola: Generalized WKB approximation in chiral stratified media. *URSI National Radio Science Meeting*, Boulder CO, January 1990, p.133.

52. I.V. Lindell, A.H. Sihvola, A.J. Viitanen: Geometrical optics approximation in chiral media with application to lens antennas. *URSI National Radio Science Meeting*, Boulder CO, January 1990, p.134.

53. M.I. Oksanen, H. Mäki, I.V. Lindell: An alternative method for calculating attenuation in optical fibers and waveguides. *MIOP'90*, Stuttgart, April 1990, 608-613.

54. I.V. Lindell, A.H. Sihvola, P.W. Barber: Hydrometeor scattering analysis with dipoles in complex space. *IGARSS'90*, College Park, MD, May 1990, p.1053. Also: *URSI Commission F Meeting*, pp.119-120.

55. K.I. Nikoskinen, I.V. Lindell: General time-domain solution for fields arising from a dipole above lossless ground. *URSI Commission F Meeting*, College Park MD, May 1990, pp.30-31. also: *IGARSS'90*, p.67.

56. I.V. Lindell, A.H. Sihvola: Plane-wave scattering from a small chiral sphere. *URSI Radio Science Meeting* Dallas TX, May 1990, p.140.

57. A.J. Viitanen, I.V. Lindell, A.H. Sihvola: Geometrical optics method for polarization correction of Luneburg lens with chiral media. *IEEE AP Symposium* Dallas TX, May 1990, pp.1192-1195.

58. A.J. Viitanen, I.V. Lindell, A.H. Sihvola, S.A. Tretyakov: Eigensolutions for the interface problem of two chiral half spaces. *URSI Radio Science Meeting* Dallas TX, May 1990, p.141

59. A.H. Sihvola, I.V. Lindell: Maxwell-Garnett mixing formula for chiral media. *URSI XXIII General Assembly*, Prague Czechoslovakia, September 1990, p.408.

60. A.J. Viitanen, I.V. Lindell: Geometrical optics method for polarization correction of short focus horn antenna with chiral medium. *JINA'90, Journees Internationales de Nice sur les Antennes*, Nice France, November 1990, pp.226-229.

61. I.V. Lindell: Image theory for the electrostatic and magnetostatic problems involving a material sphere. *ISTET, 6th International Symposium on Theoretical Electrical Engineering*, Cottbus FRG, May 1991. *4th International Journal of Theoretical Electrotechnics*, pp.121-128, Szczecin, 1992.

62. I.V. Lindell: Image principle for the electrostatic problem involving a dielectric sphere. *North American Radio Science Meeting*, London, Ontario, June 1991, p.91.

63. I.V. Lindell, A.J. Viitanen: Green functions for bi-isotropic (nonreciprocal chiral) media. *North American Radio Science Meeting*, London, Ontario, June 1991, p.338.

64. I.V. Lindell, A.J. Viitanen: Duality transformation for bi-isotropic (nonreciprocal chiral) media. *Progress in Electromagnetics Research Symposium*, Cambridge, Mass., July 1991, p.332.

65. A.H. Sihvola, I.V. Lindell: Effective electromagnetic parameters for mixtures of chiral ellipsoids with orientation distribution. *Progress in Electromagnetics Research Symposium*, Cambridge, Mass., July 1991, p.498.

66. I.V. Lindell: Image principle for the quasistatic problem of the chiral sphere. *Progress in Electromagnetics Research Symposium*, Cambridge, Mass., July 1991, p.503.

67. M. Oksanen, P. Koivisto, I.V. Lindell: Dispersion curves and fields for chiral dielectric waveguides. *Progress in Electromagnetics Research Symposium*, Cambridge, Mass., July 1991, p.711.

68. I.V. Lindell, A.H. Sihvola, A.J. Viitanen: Brewster angles for bi-isotropic (nonreciprocal chiral) interface. *URSI National Radio Science Meeting*, Boulder CO, January 1992, p.120.

69. M.E. Ermutlu, I.V. Lindell, K.I. Nikoskinen: Exact image theory for conducting half plane. *Day of Diffraction*, St Petersburg, June 1992, pp.13-14.

70. A.J. Viitanen, I.V. Lindell: WKB approximation applied to plane wave reflection from a stratified bi-isotropic medium. *Day of Diffraction*, St Petersburg, June 1992, p.37.

71. A.H. Sihvola, I.V. Lindell: Using Brewster angle for measuring microwave material parameters of bi-isotropic and chiral media. Accepted for *1992 IEEE International Microwave Symposium*, Albuquerque NM, June 1992, pp.1135-1138.

72. I.V. Lindell, M.E. Ermutlu, K.I. Nikoskinen: Two-dimensional image theory for the conducting half space. *URSI Radio Science Meeting*, Chicago July 1992, p.101.

73. I.V. Lindell: On the reciprocity of bi-isotropic media. *URSI Radio Science Meeting*, Chicago July 1992, p.364.

74. S.A. Tretyakov, M.I. Oksanen, I.V. Lindell: Wave reflection and transmission from layered general bi-isotropic structures. *URSI Radio Science Meeting*, Chicago July 1992, p.442.

75. I.V. Lindell, S.A. Tretyakov, M.I. Oksanen: Vector transmission-line theory for problems involving layered bi-isotropic media. *URSI International Symposium on Electromagnetic Theory*, Sydney August 1992, pp.155-157.

76. J.C.-E. Sten, K.I. Nikoskinen, I.V. Lindell: Electrostatic image theory for the interaction of two dielectric spheres. *URSI International Symposium on Electromagnetic Theory*, Sydney August 1992, pp.483-485.

77. I.V. Lindell: Electromagnetics in novel isotropic media. Invited paper in *22th European Microwave Conference*, Espoo August 1992, pp.86-97.

78. A.H. Sihvola, I.V. Lindell: Free-space antenna measurement principles for measuring nover bi-isotropic materials", *Journées Internationales de Nice sur les Antennes*, Nice, November 1992, pp.195-197.

79. I.V. Lindell, R.E. Kleinman: Low-frequency image theory for the dielectric sphere. *URSI National Radio Science Meeting*, Boulder CO, January 1993, p.84.

80. I.V. Lindell, A.J. Viitanen: Plane wave propagation in a uniaxial chiral medium. *URSI Radio Science Meeting*, Ann Arbor MI, June 1993, p.248.

81. M.E. Ermutlu, I.V. Lindell, K.I. Nikoskinen: Two-dimensional image theory for the conducting wedge. *Progress in Electromagnetics Research Symposium*, Pasadena CA, July 1993, p.152.

82. A.J. Viitanen, I.V. Lindell: Plane-wave propagation and eigenfields in a uniaxial bianisotropic medium. *Progress in Electromagnetics Research Symposium*, Pasadena CA, July 1993, p.530.

83. I.V. Lindell: Static image theory for layered bi-isotropic media in planar and cylindrical geometry. *URSI General Assembly*, Kyoto, August 1993, p.22, invited paper.

84. I.V. Lindell, S.A. Tretyakov, A.J. Viitanen: Plane wave propagation in a uniaxial chiral and omega medium. *3rd International Symposium on Antennas and EM Theory*, Nanjing, September 1993, pp.554-557, invited paper.

85. A.J. Viitanen, I.V. Lindell: Uniaxial bianisotropic slab as a polarization transformer. *23th European Microwave Conference*, Madrid, September 1993, pp.179-181.

86. A.J. Viitanen, I.V. Lindell: Uniaxial chiral quarter-wavelength slab as a polarization transformer. *ICEAA-EESC 93*, Torino, September 1993, pp.175-178.

87. I.V. Lindell, W.S. Weiglhofer: Construction of the Green Dyadic for axially chiral uniaxial media. *3rd Int. Workshop on Chiral, Bi-isotropic and bi-anisotropic media*, Perigueux, France, May 1994, p.303.

88. I.V. Lindell, W.S. Weiglhofer: Analytic solutions for fields in certain anisotropic chiral media. *3rd Int. Workshop on Chiral, Bi-isotropic*

and bi-anisotropic media, Perigueux, France, May 1994, pp.131-135.

89. I.V. Lindell, A.H. Sihvola: Plane-wave reflection from a uniaxial half space with application to polarization transformer. *3rd Int. Workshop on Chiral, Bi-isotropic and bi-anisotropic media*, Perigueux, France, May 1994, pp.259-263.

90. I.V. Lindell: New artificial media and some applications. Part I: General principles. Invited paper in *Antenn 94*, Eskilstuna, Sweden, May-June 1994, pp.41-46.

91. K.I. Nikoskinen, M.E. Ermutlu, I.V. Lindell: Transient image theory for 2D and 3D conducting wedge problems. *1994 URSI Radio Science Meeting*, Seattle, June 1994, p.345.

92. I.V. Lindell, W.S. Weiglhofer: Green dyadic of a uniaxial chiral medium. *1994 URSI Radio Science Meeting*, Seattle, June 1994, p.424.

93. W.S. Weiglhofer, I.V. Lindell: Scalar potential formalism for uniaxial bianisotropic media. *1994 IEEE AP-S International Symposium*, Seattle, June 1994, pp.1586-1589.

94. I.V. Lindell: Image theory for the soft and hard surface and unidirectionally conducting screen, Invited talk in *International Meeting on Soft and Hard Surfaces*, University of Washington, Seattle, June 1994.

95. A. Sihvola, I. Lindell, M. Oksanen, A. Hujanen: Broadbanded microwave measurements and analysis of artificial chiral materials, *European Microwave Conference*, Cannes, France, September 1994, pp.378–383.

96. I.V. Lindell: Image theory for the soft and hard surface, *Journées Internationales de Nice sur les Antennes*, Nice, France, November 1994, pp.42–45.

97. I.V. Lindell: Source decomposition theory for uniaxial media. *1995 URSI Radio Science Meeting*, Newport Beach CA, June 1995, p.45.

98. I. Lindell, A. Sihvola, P. Puska, L. Ruotanen: Inequalities for medium parameters of idealized bi-anisotropic media based on the energy condition. *Chiral'95*, University Park PA, October 1995, pp.105-108.

99. I.V. Lindell: Image theory for the chiral half space. *RVK96, Radiovetenskaplig konferens*, Luleå, Sweden, June 1996, pp.170-174.

100. A.H. Sihvola, I. Lindell: Effective-medium electromagnetic characterization of heterogeneous complex bi-anisotropic media. *RVK96, Radiovetenskaplig konferens*, Luleå, Sweden, June 1996, pp.194-197.

101. I.V. Lindell, K.I. Nikoskinen, M.J. Flykt: Electrostatic image principle for the anisotropic half space. *1996, Progress in Electromagnetic Research Symposium*, Innsbruck, Austria, July 1996, p.9.

102. M.P. Silverman, I.V. Lindell: Electromagnetic scattering by an achiral sphere in a chiral medium. Invited paper, *1996, Progress in Electromagnetic Research Symposium*, Innsbruck, Austria, July 1996, p.493.

103. A. Sihvola, I. Lindell: Complex media in electromagnetics: Simple algebra with six-vectors, *URSI General Assembly*, Lille, France 1996, p.40.

104. P.P. Puska, I.V. Lindell: Reflector with illumination angle distinguishing characteristics, *JINA 96, Journees Internationales de Nice sur les Antennes*, Nice, France, November 1996, pp.516-519.

105. I.V. Lindell: Image theories in electromagnetics, *Asia-Pacific Microwave Conference*, New Delhi, India, December 1996, pp.105-108.

106. I.V. Lindell: Image theory of complex media and structures, *Bianisotropics'97*, Glasgow U.K., June 1997, invited paper, pp.165-168.

107. F. Olyslager, I.V. Lindell: Closed form Green's functions for various scalar second and fourth order operators, *Bianisotropics'97*, Glasgow U.K., June 1997, pp.173-176.

108. A. Sihvola, I.V. Lindell: Homogenisation problems of mixtures involving non-isotropic constituent materials, *Bianisotropics'97*, Glasgow U.K., June 1997, pp.191-194.

109. I.V. Lindell: Decomposition of electromagnetic fields in bi-anisotropic media, *'97*, Cambridge USA, July 1997, p.268.

110. L.H. Ruotanen, I.V. Lindell: Exact Image Theory for vertical sources above a chiral half space, *'97*, Cambridge USA, July 1997, p.270.

111. I.V. Lindell: Green dyadics for reciprocal anisotropic media - A review, *'97*, Cambridge USA, July 1997, invited paper, p.644.

112. I.V. Lindell, F. Olyslager: Analytic Green dyadic for a class of nonreciprocal anisotropic media, *'97*, Cambridge USA, July 1997, p.645.

113. I.V. Lindell, K.I. Nikoskinen, A. Viljanen: Electrostatic image principle for the general anisotropic half space, *'97*, Cambridge USA, July 1997, p.824.

114. I.V. Lindell, F. Olyslager: Decomposition of electromagnetic sources for a class of anisotropic media, *1997 URSI Radio Science Meeting*, Montreal Canada, July 1997, p.197.

115. I.V. Lindell: Heaviside operational calculus and the theory of images, *1997 URSI Radio Science Meeting*, Montreal Canada, July 1997, p.716.

116. I.V. Lindell: Heaviside operational calculus in electromagnetic image theories, *ISAE'97, International Symposium on Antennas and EM Theory*, Xi'an China, August 1997, invited plenary lecture, pp.2-5.

117. I.V. Lindell: Decomposition of electromagnetic fields in bi-anisotropic media, *ISAE'97, International Symposium on Antennas and EM Theory*, Xi'an China, August 1997, pp.6-9.

118. A.H. Sihvola, G. Kristensson, I.V. Lindell: Time-domain microwave transmission-lines and the non-radiating source problem, *27th European Microwave Conference*, Jerusalem, Israel, September 1997, pp.1252-1257.

119. I.V. Lindell, K.I. Nikoskinen, A. Viljanen: Heaviside operator method and the electrostatic image principle for the anisotropic half space, *URSI Symposium on Electromagnetic Theory*, Thessaloniki, Greece, May 1998, pp.775-777.

120. I.V. Lindell, F. Olyslager: Electromagnetic field and source decomposition and Green dyadics for a class of nonreciprocal anisotropic media, *URSI Symposium on Electromagnetic Theory*, Thessaloniki, Greece, May 1998, pp.778-780.

121. I.V. Lindell, L.H. Ruotanen: Duality transformation and Green dyadics for bi-anisotropic media, *Bianisotropics 98*, Braunschweig, Germany, June 1998, pp.5-8.

122. L.H. Ruotanen, I.V. Lindell: Plane-wave propagation in decomposable bi-anisotropic media, *Bianisotropics 98*, Braunschweig, Germany, June 1998, pp.17-20.

123. I.V. Lindell, F. Olyslager: Construction of the the Green dyadic for a new class of bi-anisotropic media, *Bianisotropics 98*, Braunschweig, Germany, June 1998, pp.233-236.

124. I.V. Lindell: Heaviside operational calculus and the electromagnetic image method, *Scattering from microstructures*, Laredo, Spain, September 1998, invited paper, p.8.

125. A.J. Viitanen, I.V. Lindell: Cross-polarization elimination of aperture antennas with chiral slab polariser, *JINA'98*, Nice, France, November 1998, pp.586-589.

126. I.V. Lindell, F. Olyslager: Green dyadics for self-dual bi-anisotropic media, *1999 National Radio Science Meeting*, Boulder Jan. 4-8, 1999, p.126.

127. I.V. Lindell, L.H. Ruotanen: Duality transformation in problems involving electromagnetic media, *1999*, Taipei, Taiwan, March 22-26, 1999, p.447.

128. I.V. Lindell, F. Olyslager: Green dyadics for the class of self-dual bi-anisotropic media, *1999*, Taipei, Taiwan, March 22-26, 1999, p.448.

129. I.V. Lindell: Electromagnetic field and source decomposition in a class of linear media, *Day of Diffraction'99*, St Petersburg, Russia, June 1-4, 1999, p.29.

130. M.J. Flykt, E. Eloranta, I.V. Lindell: Electromagnetic image method for underwater anisotropic half space. *61st EAGE Conference*, Helsinki June 7-11, 1999, paper 028 (4pp).

131. A.H. Sihvola, I.V. Lindell: Dielectric analysis of nonlinearly responding small particles. *RVK 99*, Karlskrona, Sweden, June 14-17, 1999, pp.89-91.

132. I.V. Lindell: Generalized Huygens' principle and surface integral equations. Invited paper in *URSI General Assembly*, Toronto, August 1999, p.67.

133. I.V. Lindell, L. Ruotanen, F. Olyslager: Duality transformations for bi-anisotropic media. Invited paper in *URSI General Assembly*, Toronto, August 1999, p.90.

134. I.V. Lindell, F. Olyslager: Decomposition of electromagnetic fields in bi-anisotropic media. Invited paper in *URSI General Assembly*, Toronto, August 1999, p.199.

135. I.V. Lindell: Four revolutions in Electricity and Magnetism in the 19th Century. Invited paper, *AP2000*, Davos Switzerland, April 2000, p.85.

136. I.V. Lindell: Maxwell stress tensor in differential-form formalism. Invited paper, *EuroEM 2000*, Edinburgh, Scotland, May-June 2000, p.9.

137. J. Hänninen, R. Pirjola, I. Lindell: Simple image principle for geophysical applications, , Boston July 2000, p.594.

138. I.V. Lindell, L.H. Puska, F. Olyslager, Generalizing the TE/TM decomposition for electromagnetic fields. Invited paper, *IEEE 2000 AP-S International Symposium and URSI National Radio Science Meeting*, Salt Lake City, July 2000, p.142.

139. I.V. Lindell, Ideal boundary conditions in electromagnetics, *IEEE 2000 AP-S International Symposium and URSI National Radio Science Meeting*, Salt Lake City, July 2000, p.58.

140. F. Olyslager, I.V. Lindell, A pedigree of bianisotropic media. Invited paper, *Bianisotropics 2000*, Lisbon, Portugal, September 2000, pp.153-158.

141. I.V. Lindell, F. Olyslager, Green dyadics for self-dual bi-anisotropic media, *Bianisotropics 2000*, Lisbon, Portugal, September 2000, pp.163-166.

142. J.J. Hänninen, I.V.Lindell, Static image principle for the sphere in bi-isotropic space, *Bianisotropics 2000*, Lisbon, Portugal, September 2000, pp.281-284.

143. I.V. Lindell, A.J. Viitanen, S.A. Tretyakov, The generalized soft-and-hard surface, *EuMC*, Paris, October 2000, Volume 2 pp.246-247.

144. I.V. Lindell, Ideal boundary conditions and the generalized soft-and-hard surface, *APMC 2000*, Sydney, December 2000, pp.333-336.

145. J.J. Hänninen, I.V. Lindell, R. Pirjola, Exact image theories applied to geoelectromagnetics, *General Assembly of the European Geophysical Society*, Nice March 2001, GRA3, p.1477.

146. I.V. Lindell, F. Olyslager, Electromagnetic potentials in bi-anisotropic media. Invited paper in *2001 URSI International Symposium on Electromagnetic Theory*, Victoria Canada, May 2001, pp.368-370.

147. F. Olyslager, I.V. Lindell, Generalized field decomposition in bi-anisotropic media. Invited paper in *2001 URSI International Symposium on Electromagnetic Theory*, Victoria Canada, May 2001, pp.374-376.

148. I.V. Lindell, Wireless before Marconi. *IEEE APS / URSI Symposium*, Boston July 2001, invited paper, p.2.

149. I.V. Lindell, K.I. Nikoskinen, G. Dassios, Image theory for the prolate spheroid. *IEEE APS / URSI Symposium*, Boston July 2001, p.121.

150. J.J. Hänninen, I.V. Lindell, R.J. Pirjola, Application of the Exact Image Theory to low-Frequency Studies. *ISTET'01*, Linz, Austria, August 2001, 8pp.

151. J.J. Hänninen, I.V. Lindell, R.J. Pirjola, Image methods in geoelectromagnetics, *IAGA-ASPEI Joint scientific assembly*, Hanoi, Vietnam, August 2001.

152. F. Olyslager - I.V. Lindell: Electromagnetic fields in bianisotropic media, *ICEAA01*, Torino, September 2001, pp.703-706.

153. I.V. Lindell - S.A. Tretyakov: BW-media, media supporting the backward wave, *ICEAA01*, Torino, September 2001, invited paper, pp.731-734.

154. F. Olyslager, I.V. Lindell: On a special bianisotropic medium, *2002 National Radio Science Meeting*, Boulder January 2002, p.57.

155. I.V. Lindell: Generalized soft-and-hard boundary conditions, *IEEE APS/URSI Symposium*, San Antonio, Texas, June 2002, p.220.

156. S. Ilvonen, I.V. Lindell: Waves in a slab of uniaxial BW medium, *2002*, Cambridge, July 2002, p.910.

157. I.V. Lindell: Ideal and generalized soft-and-hard boundaries, *URSI General Assembly*, Maastricht, the Netherlands, August 2002, BP.P.18 (4 pages).

158. F. Olyslager, I.V. Lindell: Generalized Hertz potentials for bianisotropic media, *URSI General Assembly*, Maastricht, the Netherlands, August 2002, invited paper B1.O.2 (4 pages).

159. I.V. Lindell: The electromagnetic image method, *6th International Workshop on Mathematical Methods in Scattering Theory and Biomedical Engineering*, Tsepelovo, Greece, September 2003, p.61, invited paper.

160. I.V. Lindell, J.J. Hänninen, K.I. Nikoskinen: Electrostatic image theory for the anisotropic boundary, *2003*, Honolulu, October 2003, p.154.

161. I.V. Lindell: Evolution of Electromagnetics, *URSI Int. Symposium on Electromagnetic Theory*, Pisa May 2004, pp.1-3, invited plenary talk.

162. A.H. Sihvola, I.V. Lindell: On the three different denotations of handedness in wave-material interaction, *URSI Int. Symposium on Electromagnetic Theory*, Pisa May 2004, pp.84-86, invited paper.

163. I.V. Lindell: Differential forms and electromagnetic media, *2004*, Nanjing August 2004, p.243.

164. I.V. Lindell: Differential forms and bianisotropic media, *Bianisotropics 2004 — 10th*

conference on complex media and metamaterials, Ghent Belgium, September 2004, pp.16-19, invited plenary talk.

165. A. Sihvola, I. Lindell: Transgressing the boundaries of material electromagnetics: affine-isotropic and anarchistic media, *Bianisotropics 2004 — 10th conference on complex media and metamaterials*, Ghent Belgium, September 2004, pp.144-147.

166. I.V. Lindell: Evolution of Electromagnetics, *50 Jahre URSI Landesausschuss, Festcolloquium*, Miltenberg Germany, September 2004, invited plenary talk.

167. A. Sihvola, I.V. Lindell: Concept of PEMC material in electromagnetics, *EPFL Latsis Symposium*, Lausanne Switzerland, February 2005, p.105.

168. A. Sihvola, P. Yli-Oijala, I. Lindell: Bistatic scattering from a PEMC (perfect electromagnetic conducting) sphere: surface integral equation approach, *IEEE/ACES 2005*, Honolulu Hawaii, April 2005, paper s08p04a (4 pages).

169. I.V. Lindell: Differential forms in electromagnetics, *Advanced Computational Electromagnetism, International seminar*, Tampere, Finland May-June 2005, pp.46-79.

170. I.V. Lindell, A. Sihvola: Perfect electromagnetic conductor (PEMC) in electromagnetics, *2005*, Hangzhou, China August 2005, p.119.

171. A. Sihvola, I.V. Lindell: Scattering properties of PEMC (Perfect electromagnetic conducting) materials, *2005*, Hangzhou, China August 2005, p.120.

172. I.V. Lindell, A. Sihvola: Realization of PEMC (Perfect electromagnetic conductor) boundary, *2005*, Hangzhou, China August 2005, p.604.

173. I.V. Lindell: Differential forms and electromagnetic materials, *International Workshop on Metamaterials and Negative Refraction*, Hangzhou China August 2005, p.22.

174. I.V. Lindell, A. Sihvola: Perfect electromagnetic conductor (PEMC), *ICEAA 05*, Torino, Italy September 2005, pp.559–562.

175. A. Sihvola, I.V. Lindell: Material aspects of PEMC, *ICEAA 05*, Torino, Italy September 2005, pp.563–566.

176. I.V. Lindell: Differential forms in Electromagnetics, *ICEAA 2005*, Torino, Italy September 2005, pp.915–918.

177. I.V. Lindell, A. Sihvola: Negative-definite media, *2006*, Cambridge MA, March 2006, p.86.

178. I.V. Lindell, A. Sihvola: Losses in the PEMC boundary, *2006*, Cambridge MA, March 2006, p.10.

179. A. Sihvola, I.V. Lindell: Analysis and visualization of fields and waves inside a PEMC waveguide, *2006*, Cambridge MA, March 2006, p.266.

180. A. Sihvola, I.V. Lindell: Restrictions and limitations of parameters in the description of complex media, *2006*, Cambridge MA, March 2006, p.90.

181. A. Sihvola, I.V. Lindell, M. Pitkonen: Analysis and visualisation of fields and waves inside a PEMC waveguide, *2006*, Cambridge MA, March 2006, p.266.

182. A. Sihvola, I.V. Lindell: Perfect electromagnetic conductor as metamaterial: corollaries regarding the existence of Tellegen media. *MELECON*, Benalmadena (Malaga), Spain May 2006, pp.262-264.

183. A. Sihvola, I.V. Lindell: Perfect electromagnetic conductor as metamaterial: corollaries regarding the existence of Tellegen media. *MELECON*, Benalmadena (Malaga), Spain May 2006, pp.262-264.

184. I.V. Lindell, A. Sihvola: Realization of impedance surface in terms of a slab of metamaterial, *Days of Diffraction 2006*, St Petersburg May-June 2006, p.47.

185. I.V. Lindell, A. Sihvola, I. Hänninen: Realization of perfectly anisotropic impedance boundary, *EuCAP 2006*, Nice November 2006, paper 306293 (4 pages).

186. A. Sihvola, I.V. Lindell: Possible applications of perfect electromagnetic conductor (PEMC) media, *EuCAP 2006*, Nice November 2006, paper 349453 (4 pages).

187. I.V. Lindell, A. Sihvola: Realization of impedance boundary in terms of a slab of waveguiding medium, *2007*, Beijing March 2007, pp.890–891.

188. I. Hänninen, I.V. Lindell, A. Sihvola: Realization of generalized soft-and-hard boundary, *2007*, Beijing March 2007, pp.902–904.

189. I.V. Lindell: Class of self-dual media, *Metamaterials'2007,* p.161, Rome, Italy, October 2007.

190. I.V. Lindell, A.H. Sihvola: Fields in Perfect Electromagnetic Conductor, *URSI General Assembly*, Chicago, August 2008, paper BCD3(81), 4 pages.

191. A.H. Sihvola, I.V. Lindell: Existence of limits for Electromagnetic parameters of metamaterials, *URSI General Assembly*, Chicago, August 2008, paper BP13.8(314), 4 pages.

192. I.V. Lindell, A.H. Sihvola: Uniaxial IB (axion-skewon) medium interface as isotropic soft-and-hard surface, *Metamaterials 2008*, Pamplona, Spain, September 2008, 3 pages.

193. I.V. Lindell, A.H. Sihvola: DB boundary as isotropic soft surface, *Asian Pacific Microwave Conference*, Hong Kong December 2008, IEEE Catalog number CFP08APM-USB, 4 pages.

194. A. Sihvola and I.V. Lindell: EZNZ vs. ENZ metamaterials: anisotropy flavors extreme parameters. *Proceedings of Nanometa 2009, 2nd European Topical Meeting on Nanophotonics and Metamaterials*, January 5-8, 2009, Seefeld, Tirol, Austria, file tue2s4.pdf, Europhysics Conference Abstract Volume 33A.

195. A.H. Sihvola, I.V. Lindell: Anisotropy and extreme parameters: waveguiding and DB media. *Progress In Electromagnetics Research Symposium (2009)*, March 23-27, 2009, Beijing, China, p. 295.

196. A. Sihvola, I.V. Lindell: The DB boundary condition and applications in electromagnetics. *Days of Diffraction2009*, pp. 136-137, May 26-29, 2009, St. Petersburg, Russia.

197. I.V. Lindell, A. Sihvola: Boundary conditions involving normal field components, *2009 IEEE AP-S and URSI Symposium*, Charleston SC, June 2009, paper 528.2.

198. I.V. Lindell, A. Sihvola: Electromagnetic boundaries defined by normal components of EM fields, *Metamaterials 2009: The Third International Congress on Advanced Electromagnetic Materials in Microwaves and Optics*, London, September 1-4, 2009, 4 pages.

199. A. Sihvola, H. Wallén, I.V. Lindell: Extreme-parameter materials and boundary conditions, *Metamaterials 2009: The Third International Congress on Advanced Electromagnetic Materials in Microwaves and Optics*, London, September 1-4, 2009, pp. 172-174.

200. H. Wallén, I.V. Lindell, A. Sihvola: Mie scattering and (ab)normal boundary conditions *META'10*, Cairo, Egypt, February 2010.

201. A. Sihvola, J. Qi, I.V. Lindell: Confinement and propagation relations for Zenneck surface waves, *EuCAP*, Barcelona April 2010, paper 1849170 (4 pages).

202. A. Sihvola, I.V. Lindell, "The varieties of boundary conditions in electromagnetics" (plenary talk). *Progress in Applied Computational Electromagnetics (ACES)*, Proceedings of the 26th Annual Review, p.2, Tampere, Finland, April 26-29, 2010.

203. I.V. Lindell, A. Sihvola, H. Wallén: "Mixed-impedance boundary conditions, , Boston, July 2010, p.711.

204. I.V. Lindell, "On the classification of electromagnetic media (invited)," *URSI Electromagnetic Theory Symposium*, Berlin, Germany, August 2010, pp.767–770.

205. P. Ylä-Oijala, S.P. Kiminki, J. Markkanen, H. Wallén, A. Sihvola, I.V. Lindell, S. Järvenpää, "Numerical methods for scattering problems expressed in terms of normal field components and their normal derivatives," *URSI Electromagnetic Theory Symposium*, Berlin, Germany, August 2010, pp.808–811.

206. I. Lindell, L. Bergamin, A. Favaro, "The Class of Decomposable Media in Four-Dimensional Representation," *URSI GASS*, Istanbul, August 13-20, 2011, paper B01.4 (4 pages), ISBN 978-1-4244-5118-0 .

207. A. Sihvola, H. Wallén, P. Ylä-Oijala, J. Markkanen, I.V. Lindell, "Material realizations of extreme electromagnetic boundary conditions and metasurfaces," URSI GASS, Istanbul, August 13-20, 2011, paper B05.2 (4 pages), ISBN 978-1-4244-5118-0.

208. I. Lindell, L. Bergamin, A. Favaro, "Differential Forms and Decomposable Media," , Suzhou China, September 12-16, 2011, p.133.

209. A. Sihvola, I. Lindell, "Numerical analysis of the realization of the D'B' boundary condition for planar surfaces," , Suzhou China, September 12-16, 2011, pp.1045–1049.

210. I. Lindell, A. Sihvola, L. Bergamin, A. Favaro, "Realization of the D'B' boundary in terms of metamaterial," *Metamaterials'2011*, Barcelona, October 2011, pp.690–692.

211. A. Favaro, L. Bergamin, I.V. Lindell, Yu. Obukhov, "Pre-metric electrodynamics, electric-magnetic duality and closure relations",*2nd GIF Workshop*, Jerusalem, February 19–23, 2012, `http://www.jct.ac.il/eng/research.php?cat=829&incat=824`.

212. I.V. Lindell, A. Sihvola, J. Markkanen, P. Ylä-Oijala, "Realization of spherical D'B' boundary," *Advanced Electromagnetics Symposium AES 2012*, Paris 16-19 April 2012, p.11 (invited paper).

213. I.V. Lindell, "On electromagnetic fields in skewon-axion media," *ICEAA'12*, Cape Town, South Africa, September 2012 pp.58–61.

214. I.V. Lindell, A. Sihvola, "Skewon-axion medium and SHDB boundary conditions," *ICEAA'12*, Cape Town, South Africa, September 2012, pp.39–42.

215. A. Sihvola, P. Ylä-Oijala, J. Markkanen, I.V. Lindell, "Metaboundary materialization with extreme anisotropy," *Metamaterials 2012*, St Petersburg September 2012, pp.511–513.

216. I.V. Lindell, A. Favaro, "Electromagnetic Media with no Dispersion Equation," *URSI EM Theory Symposium*, Hiroshima, May 2013, pp.188-190.

217. A. Favaro, I.V. Lindell, "Electromagnetic media with no Fresnel (dispersion) equation and novel jump (boundary) conditions," *3rd GIF workshop*, ZARM, Bremen, 17-20 June 2013. `http://www.thp.uni-koeln.de/gravitation/mitarbeiter/favaro/brementalk.pdf`

218. I.V. Lindell, A. Favaro, "Media not restricted by a dispersion equation," *Progress in Electromagnetics Research Symposium*, Stockholm August 2013, p.122.

219. I.V. Lindell, "Skewon-axion medium as boundary material," *URSI GASS*, Beijing, August 2014, to be presented.