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## Journal articles and letters year by year

### 1980-84: 17

- [1] P-S. Kildal and E. Sørngård, "Circularly polarized feed for cylindrical parabolic reflector antennas", *IEEE Trans. Antennas Propagat.*, Vol. AP-28, No. 2, pp. 210-215, March 1980.
- [2] P-S. Kildal, "Discrete phase-steering by permuting precut phase cables", *IEEE Proc.*, Vol. 129, MOA, No. 4, August 1981, pp. 218-220.
- [3] P-S. Kildal, "On the accuracy of physical optics", *IEEE Trans. Antennas Propagat.*, Vol. AP-30, No. 3, pp. 509-512, May 1982.
- [4] P-S. Kildal and S.A. Skyttemyr, "Dipole-disk antenna with beamforming ring", *IEEE Trans. Antennas Propagat.*, Vol. AP-30, No. 4, July 1982, pp. 529-534. (has been translated to Chinese)
- [5] G. Schroer, T. Hagfors and P-S. Kildal, "VHF-Radarantenne zur Messung inkoh\_renter Streustrahlung in der Ionosphäre", *Micro-wellen Magazin*, Vol. 8, No. 5, 1982, pp. 545-551.
- [6] T. Hagfors, P-S. Kildal, H.J. Kärcher, B. Liesenkötter, and G. Schröer, "VHF parabolic cylinder antenna for incoherent scatter radar research", *Radio Science*, Vol. 17, No. 6, pp.1607-1621, Nov.-Dec. 1982.
- [7] P-S. Kildal, "Combined E- and H-plane phase-centers of antenna feeds", *IEEE Trans. Antennas Propagat.*, Vol. AP-31, No. 1, pp. 199-202, January 1983.
- [8] P-S. Kildal, "The effects of subreflector diffraction on the aperture efficiency of a conventional Cassegrain antenna - An analytical approach", *IEEE Trans. Antennas Propagat.*, Vol. AP-31, No. 6, pp. 903-909, Nov. 1983.
- [9] P-S. Kildal, "Asymptotic approximations of radiation integrals - endpoint and double endpoint diffraction", *Radio Science*, Vol. 19, No. 3, pp. 805-811, May-June 1984.
- [10] K. Sundhakar Rao and P-S. Kildal, "A study of the diffraction and blockage effects on the efficiency of the Cassegrain antenna", *Can. Elec. Eng. J.*, Vol. 9, pp. 10-15, No. 1, 1984.
- [11] P-S. Kildal, "Radiation characteristics of the EISCAT VHF parabolic cylinder antenna", *IEEE Trans. Antennas Propagat.*, Vol. AP-32, No. 6, pp. 541-552, June 1984. (R.W.P. King Award Paper 1985).
- [12] P-S. Kildal, "Aperture efficiency and line feed phase center parabolic cylindrical reflector antenna", *IEEE Trans. Antennas Propagat.*, Vol. AP-32, No. 6, pp. 553-561, June 1984. (R.W.P. King Award Paper 1985).
- [13] P-S. Kildal, "A formula for efficient computation of radiation from a current source in proximity to cylindrical scatters", *IEEE Trans. Antennas Propagat.*, Vol. AP-32, No. 7, pp. 754-757, July 1984.
- [14] P-S. Kildal, "Diffraction corrections to the cylindrical wave radiated by a linear array feed of a cylindrical reflector antenna", *IEEE Trans. Antennas Propagat.*, Vol. 32, No. 10, pp. 1111-1116, Oct. 1984.
- [15] P-S. Kildal and K. Jakobsen, "Scalar horn with shaped lens improves Cassegrain efficiency", *IEEE Trans. Antennas Propagat.*, Vol. 32, No. 10, pp.1094-1100, October 1984.
- [16] P-S. Kildal, "Comments on 'Synthesis of offset dual shaped subreflector antennas for control of Cassegrain aperture distribution'", (Comments on a paper by V. Galindo-Israel and R. Mittra), *IEEE Trans. Antennas Propagat.*, Vol. 32, No. 10, pp. 1142-1145, October 1984.
- [17] P-S. Kildal, K. Jakobsen and K. Sudhakar Rao, "Meniscus lens-corrected corrugated horn: An efficient feed for a Cassegrain antenna", *IEE Proc.*, MOA, Part H, No. 6, pp. 390-394, Dec. 1984.

### 1985-89: 17

- [18] P-S. Kildal, "Comments on 'Phase center calculation of reflector antenna feeds'", (Comments on a paper by K. Sudhakar Rao and L. Shafai), *IEEE Trans. Antennas Propagat.*, Vol. AP-33, No. 5, pp. 579-580, May 1985.
- [19] P-S. Kildal, "Factorization of the feed efficiency of paraboloids and Cassegrain antennas", *IEEE Trans. Antennas Propagat.*, Vol. Ap-33, No. 8, pp.903-908, Aug. 1985. (has been translated to Chinese)
- [20] P-S. Kildal, "A small dipole-fed resonant reflector antenna with high efficiency, low cross polarization and low sidelobes", *IEEE Trans. Antennas Propagat.*, Vol. AP-33, No. 12, pp. 1386-1391, Dec. 1985.
- [21] P-S. Kildal, "Study of element patterns and excitations of the line feeds of the spherical reflector antenna in Arecibo", *IEEE Trans. Antennas Propagat.*, Vol. AP-34, No. 2, pp. 197-207, Feb. 1986.
- [22] P-S. Kildal, "The hat feed: A dual-mode rear-radiating wave-guide antenna having low cross-polarization", *IEEE Trans. Antennas Propagat.*, Vol. AP-35, No. 9, pp. 1010-1016, Sept. 1987.

- [23] P-S. Kildal, E. Olsen and J.A. Aas, "Losses, sidelobes and cross polarization caused by feed-support struts in reflector antennas; Design curves", *IEEE Trans. Antennas Propagat.*, Vol. AP-36, No. 2, pp. 182-190, February 1988.
- [24] P-S. Kildal, "Definition of artificially soft and hard surfaces for electromagnetic waves", *Electronic Letters*, Vol. 24, No. 3, pp. 168-170, 4th February 1988.
- [25] P-S. Kildal, "A Gaussian beam model for aperture-controlled and flare-angle controlled corrugated horn antennas", *IEE Proceedings, Part H, MOA*, Vol. 135, No. 4, Aug. 1988, pp. 237-240.
- [26] P-S. Kildal, "Bandwidth of square hard horn", *IEE Proceedings Part H, MOA*, Vol. 135, No. 4, pp. 275-278, Aug. 1988.
- [27] P-S. Kildal, T. Pettersen, E. Lier and J.A. Aas, "Reflectors and feeds in Norway", *IEEE Antennas and Propagation Society's Newsletter*, April 1988 and the *Norwegian Journal Telektronikk*, No. 2-3, 1988.
- [28] P-S. Kildal and E. Lier, "Hard horns improve cluster feeds of satellite antennas", *Electronics Letters*, 14th April 1988, Vol. 24, No. 8, pp. 491-492.
- [29] E. Lier and P-S. Kildal, "Soft and hard horn antennas", *IEEE Trans. Antennas Propagat.*, Vol. 36, No. 8, pp. 1152-1157, Aug. 1988.
- [30] P-S. Kildal, "Laws of geometrical optics mapping in multi-reflector antennas with application to elliptical apertures", *IEE Proceedings, Part H, MOA*, No. 6, pp. 445-453, Dec. 1989. (See also Erratum published in Vol. 137, Pt. H, No. 2, p152, April 1990.)
- [31] P-S. Kildal, S.A. Skyttemyr, "Diffraction analysis of a proposed dual-reflector feed for the spherical reflector antenna of the Arecibo Observatory", *Radio Science*, Vol. 24, No. 5, pp. 601-617, Sept.-Oct. 1989.
- [32] T. Ulversøy and P-S. Kildal, "Radiation from slots in artificially soft and hard cylinders", *IEEE Trans. Antennas Propagat.*, Vol. AP-37, No. 12, pp. 1628-1632, Dec. 1989.
- [33] T. Ulversøy and P-S. Kildal, "Improved element patterns for the line feeds of the spherical reflector antenna in Arecibo", *IEEE Trans. Antennas Propagat.*, Vol. AP-37, No. 12, pp. 1624-1627, Dec. 1989.
- [34] T. Cwik and P-S. Kildal, "A study of three techniques used in the diffraction analysis of dual-shaped reflectors", *IEEE Trans Antennas Propagat.*, Vol. AP-37, No. 8, pp. 979-983, Aug. 1989.

### **1990: 6**

- [35] P-S. Kildal and J. Stamnes, "Asymptotic transition region theory for edge diffraction. Part 1: Tracing transition regions via reflectors", *IEEE Trans. Antennas Propagat.*, Vol.38, No. 9, pp. 1350-1358, Sept. 1990.
- [36] P-S. Kildal, "Asymptotic transition region theory for edge diffraction. Part 2: Calculation of diffraction losses in multi-reflector antennas", *IEEE Trans. Antennas Propagat*, Vol. 38, No. 9, pp. 1359-1365, Sept. 1990.
- [37] P-S. Kildal, "Diffraction analysis of line feeds for spherical reflectors", *IEEE Trans. Antennas Propagat.*, Vol. 38, No.9, pp.1366-1373, Sept. 1990.
- [38] P-S. Kildal, "Analysis of numerically specified multireflector antennas by kinematic and dynamic ray tracing", *IEEE Trans. Antennas Propagat.*, Vol. 38, No.10, pp. 1600-1606, Oct. 1990.
- [39] P-S. Kildal, "Synthesis of multireflector antennas by kinematic and dynamic ray tracing", *IEEE Trans.Antennas Propagat*, Vol. 38, No.10, pp. 1587-1599, Oct.1990. (S.A. Schelkunoff Transactions Prize Paper Award)
- [40] P-S. Kildal, "Artificially soft and hard surfaces in electromagnetics", *IEEE Trans. Antennas Propagat.*, Vol. 38, No. 10, pp. 1537-1544, Oct. 1990.

### **1991-92: 6**

- [41] P-S. Kildal, L. Baker and T. Hagfors, "Development of a dual-reflector feed for the Arecibo radio telescope", *IEEE Antennas and Propagation Magazine* (feature article), Vol 33, No 5, p12-18, October 1991.
- [42] P-S. Kildal, "A new approach to the synthesis of reflector antennas", *Radio Science*, Vol. 26, No. 2, pp. 614-623, March-April 1991
- [43] F. S. Johansson, L. R. Lagerholm, and P.-S. Kildal, "Frequency-scanned reflection gratings with integrated polarizer", *IEEE Transactions on Antennas and Propagation*, vol. 40, 3, pp. 331-334, 1992.
- [44] A. Moldsvor and P.-S. Kildal, "Analysis of aperture blockage in reflector antennas by using obstacle-located blockage currents", *IEEE Transactions on Antennas and Propagation*, vol. 40, 1, pp. 100-102, 1992.
- [45] A. Moldsvor and P.-S. Kildal, "Systematic approach to control feed scattering and multiple reflections in symmetrical primary-fed reflector antennas", *IEE Proceedings Part H*, vol. 139, 1, pp. 65-71, 1992.

- [46] W. Zieniutycz and P.-S. Kildal, "Study of wall region and dielectric losses in a square hard horn", IEE Proceedings Part H, vol. 139, 2, pp. 139-142, 1992. (Zieniutycz is with University of Gdansk)

#### **1993: 4**

- [47] K. Forooraghi and P.-S. Kildal, "Radiation pattern of a slotted waveguide array radiating between finite height baffles in terms of a spectrum of two dimensional solutions", IEE Proceedings Part H, vol. 140, 1, pp. 52-58, 1993.
- [48] K. Forooraghi, P.-S. Kildal, and S. R. Rengarajan, "Admittance of an isolated waveguide-fed slot radiating between baffles using a spectrum of two-dimensional solutions", IEEE Transactions on Antennas and Propagation, vol. 41, 4, pp. 422-428, 1993. (Rengarajan is with California State University)
- [49] K. Jaldehag, P.-S. Kildal, and B. Rönnäng, "Dual band reflector feed system for classical Cassegrain radio telescopes", IEEE Transactions on Antennas and Propagation, vol. 41, 3, pp. 325-333, 1993. (Jaldehag and Rönnäng are with Onsala Space observatory)
- [50] P.-S. Kildal, M. Johansson, T. Hagfors, and R. Giovanelli, "Analysis of a cluster feed for the Arecibo tri-reflector system using forward ray tracing and aperture integration", IEEE Transactions on Antennas and Propagation, vol. 41, 8, pp. 1019-1025, 1993. (Hagfors and Giovanelli are with Cornell University)

#### **1994: 2**

- [51] J. Hirokawa, J. Wettergren, P.-S. Kildal, M. Ando, and N. Goto, "Calculation of external aperture admittance and radiation pattern of a narrow slot cut across an edge of a sectoral cylinder in terms of a spectrum of two-dimensional solutions", IEEE Transactions on Antennas and Propagation, vol. 42, 9, pp. 1243-1249, 1994. (Hirokawa, Ando and Goto are with Tokyo Institute of Technology)
- [52] P.-S. Kildal, L. Baker, and T. Hagfors, "The Arecibo upgrading: Electrical design and expected performance of the dual-reflector feed system", Proceedings of the IEEE, vol. 82, 5, pp. 714-724., 1994. (Baker and Hagfors are with Cornell University)

#### **1995: 6**

- [53] J. Carlsson and P.-S. Kildal, "Transmission through corrugated slots", Transactions on Electromagnetic Compatibility, vol. 37, 1, pp. 114-1121, 1995. (Carlsson is with SP)
- [54] A. Kishk and P.-S. Kildal, "Electromagnetic scattering from two-dimensional anisotropic objects due to oblique plane wave incidence", Applied Computational Electromagnetics Society Journal, vol. 10, 3, pp. 81-92, 1995. (Kishk is with Univ. of Mississippi)
- [55] A. Kishk and P.-S. Kildal, "Electromagnetic scattering from a circular cylinder with an anisotropic surface impedance due to an obliquely incident plane wave", Microwave and Optical Technology Letters, vol. 10, 3, pp. 162-165, 1995.
- [56] J. Wettergren and P.-S. Kildal, "Admittance of a longitudinal slot radiating into an arbitrary cylindrical structure", IEEE Transactions on Antennas and Propagation, vol. 43, 7, pp. 667-673, 1995.
- [57] Z. Ying, P.-S. Kildal, and A. Kishk, "A broadband compact horn feed for prime-focus reflectors", Electronics Letters, vol. 31, 14, pp.1114,1115, 6th July, 1995.
- [58] P.-S. Kildal, Z. Sipus, "Classification of Rotationally Symmetric Antennas as Types BOR<sub>0</sub> and BOR<sub>1</sub>", IEEE Antennas and Propagation Magazine, Volume 37, Issue 6, p. 114, Dec. 1995

#### **1996: 8**

- [59] P.-S. Kildal and M. Davis, "Characterization of near-field focusing with application to the Arecibo tri-reflector system", IEE Proceedings Part H, Vol. 143, No. 4, pp. 284-297, Aug. 1996. (Davis is with Cornell University)
- [60] P.-S. Kildal, A. Kishk, and A. Tengs, "Reduction of forward scattering from cylindrical objects using hard surfaces", IEEE Transactions on Antennas and Propagation, Vol. 44, No. 11, pp. 1509-1520, Nov., 1996. (Kishk is with University of Mississippi)
- [61] P.-S. Kildal, S. Rengarajan, and A. Moldsvor, "Analysis of nearly cylindrical antennas and scattering problems using a spectrum of two dimensional solutions", IEEE Transactions on Antennas and Propagation, Vol. 44, No. 8, pp. 1183-1192, August 1996. (Rengarajan is with California State University, Moldsvor is with the University in Karlstad)
- [62] S. Maci, S. Raffaelli, M. Leoncini, L. Borselli, and P.-S. Kildal, "Analysis of SW excitation and radiation mechanisms of a monopole antenna on a circular grounded dielectric slab with critical thickness", IEE Proceedings Part H, Vol 143, No. 4, pp. 335-340 , 1996. (Maci et.al. are with University of Florence, Italy)

- [63] . M. Sundberg, P. O. Risman, P.-S. Kildal, and T. Ohlsson, "Analysis and design of industrial microwave ovens using the finite difference time domain method", *Journal of Microwave Power and Electromagnetic Energy (JMPEE)*, Vol 31, No 3, pp. 142-157, 1996. (Sundberg and Olsson are with SIK, Risman is with Mikrotrans AB)
- [64] Y. Zhinong and P.-S. Kildal, "Improvement of dipole, helix, microstrip path and aperture antennas with ground planes by using corrugated soft surfaces", *IEE Proceedings Part H*, Vol. 143, No. 3, pp. 244-248, 1996.
- [65] Y. Zhinong, P.-S. Kildal, and A. Kishk, "Study of different realizations and calculation models for soft surfaces by using vertical momopole on soft disk as test bed.", *IEEE Transactions on Antennas and Propagation*, Vol. 44, No. 11, pp. 1474-1481, Nov., 1996. (Kishk is with University of Mississippi)
- [66] Z. Sipus, P.-S. Kildal and J. Salomonsson, "Two-dimensional analysis of bandwidth of open hard surface", *IEE Proceedings Part H*, Vol. 143., No. 6, pp. 475-481, Dec., 1996.

### 1997: 9

- [67] J. Salomonsson, J. Hirokawa, P.-S. Kildal and A. Tengs, "A corrugated soft sector horn with different beam properties in the two principal planes" *IEE Proceedings Microwaves, Antennas and Propagation*, Vol. 144, No. 1, pp. 13-19, Feb., 1997.
- [68] J. Hirokawa and P.-S. Kildal, "Excitation of an untitled narrow-wall slot in a rectangular waveguide by using etched strips on a dielectric plate", *IEEE Transactions on Antennas and Propagation*, Vol. 45, No. 6, pp. 1032-1037, June, 1997. (Hirokawa is with Tokyo Inst. of Techn.)
- [69] J. Hirokawa, L. Manholm and P.-S. Kildal, "Analysis of and untitled wire-excited slot in the narrow wall of a rectangular waveguide by including the actual external structure", *IEEE Transactions on Antennas and Propagation*, Vol. 45, No. 6, pp. 1038-1044, June, 1997. (Hirokawa is with Tokyo Inst. of Techn.)
- [70] P.-S. Kildal, A. Kishk and Z.Sipus, "Asymptotic boundary conditions for strip-loaded and corrugated surfaces", *Microwave and Optical Technology Letters*, Vol. 14, No. 2, pp. 99-101, Febr., 1997.
- [71] P.-S. Kildal, S. A. Skyttemyr, and A. A. Kishk, "G/T maximization of a paraboloidal reflector fed by a dipole-disk antenna with ring by using the multiple-reflection approach and the moment method", *IEEE Transactions on Antennas and Propagation*, Vol. 45, No. 7, pp. 1130-1139, July, 1997.
- [72] Z. Sipus, H. Merkel and P.-S. Kildal, "Green's functions for planar soft and hard surfaces derived by asymptotic boundary conditions", *IEE Proceedings Part H*, Vol. 144, No. 5, pp. 321-328, Oct., 1997.
- [73] P.-S. Kildal, "Synthesis and analysis of a dual-reflector feed for the radio telescope in Nançay", *IEE Proceedings Microwaves, Antennas and Propagation*, Vol. 144, No. 5, pp. 289-296, Oct., 1997.
- [74] P.-S. Kildal and O. Rubiños-López, "A hybrid GO-Gaussian ray-beam", *Microwave and Optical Technology Letters*, Vol. 15, No. 5, pp. 278-282, Aug., 1997. (Rubiños López is with University of Vigo)
- [75] A.A. Kishk and P.-S. Kildal, "Asymptotic boundary conditions for strip-loaded scatterers applied to circular dielectric cylinders under oblique incidence", *IEEE Trans. Antennas Propagat.*, Vol. 45, No. 1, pp. 51-56, Jan., 1997.

### 1998: 7

- [76] A. Freni, Z. Sipus and P.-S. Kildal, "Analysis of strip loaded hard struts using finite element method and asymptotic strip boundary conditions", *Electronics Letters*, Vol. 34, No. 7, pp. 643-644, Apr., 1998. Angelo Freni is with University of Florence.
- [77] Z. Sipus, S. Raffaelli and P.-S. Kildal, "Periodic strips on planar and circular cylindrical substrates: Exact and asymptotic analysis", *Microwave and Optical Technology Letters*, Vol. 17, No. 3, pp. 173-178, Feb. 1998.
- [78] M. Sundberg, P.-S. Kildal and T. Ohlsson, "Moment method analysis of a microwave tunnel oven", *J. Microwave Power and Electromagn. Energy*, Vol. 33, No. 1, pp. 36-48, 1998. (Sundberg and Olsson are with SIK)
- [79] J. Carlsson and P.-S. Kildal, "A simple method to compute crosstalk on printed circuit boards", *Microwave and Optical Technology Letters*, Vol.19, No. 2, pp. 87-94, Oct. 1998.
- [80] A. A. Kishk, P.-S. Kildal, G. Manara and A. Monorchio, "An asymptotic boundary condition for corrugated surfaces and its application to calculate scattering from circular cylinders with dielectric filled corrugations", *IEE Proceedings Microwaves, Antennas and Propagation*, Vol. 145, No. 1, pp. 116-122, Febr. 1998. (Kishk is with University of Mississippi, Manara and Monorchio are with University of Pisa)
- [81] S. P. Skobelev, P.-S. Kildal, "Blindness removal in arrays of rectangular waveguides using dielectrically loaded hard walls", *IEEE Transactions on Antennas and Propagation*, Vol. 46, No. 4, pp. 546-550, April 1998. (Skobelev is with JSC "Radiophysika", Moscow)

- [82] Z. Sipus, P-S. Kildal, R. Leijon and M. Johansson, "An algorithm for calculating Green's functions of planar, circular cylindrical and spherical multilayer substrates", *Applied Computational Electromagnetics Society Journal*, Vol. 13, No. 3, pp. 243-254, Nov. 1998.

#### **1999: 4**

- [83] A. A. Kishk, P. Slättman, P-S. Kildal, "Radiation from 3D sources in the presence of 2D composite objects of arbitrary cross-sectional shape", *Applied Computational Electromagnetics Society Journal*, Vol. 14, No. 1, pp. 17-24, March 1999. (Kishk is with Univ. of Mississippi)
- [84] J. Carlsson and P-S. Kildal, "A user-friendly computer code for radiated emission and susceptibility analysis of printed circuit boards", submitted to *Applied Computational Electromagnetics Society Journal*, Vol. 14, No. 1, pp. 1-8, March 1999.
- [85] J. Yang, P-S. Kildal, "Gaussian vertex plate improves return loss and far-out sidelobes in prime-focus reflector antennas", *Microwave and Optical Technology Letters*, Vol. 21, No. 2, pp. 125-129, April 1999.
- [86] P-S Kildal, "Equivalent circuits of receive antennas in signal processing arrays", *Microwave and Optical Technology Letters*, Vol 21, No 4, pp. 244-246, 1999.

#### **2000: 4**

- [87] Jian Yang, P-S Kildal, "Calculation of ring-shaped phase centers of feeds for ring-focus paraboloids", *IEEE Transactions on Antennas and Propagation*, Vol. 48, No. 4, pp. 524-528, April 2000.
- [88] S. P. Skobelev, P-S Kildal, "Analysis of arrays of rectangular waveguides radiating through stepwise transitions with dielectrically loaded hard walls in one plane", *Journal of Communications Technology and Electronics*, Vol. 45, No 9, pp 964-969, Sept 2000. (Skobelev is with JSC "Radiophysika", Moscow)
- [89] S. P. Skobelev, P-S Kildal, "Eigen waves of a circular waveguide with strip-loaded dielectric hard wall", *Radiotekhnika*, No 12, pp 54-57, Dec 2000. (Skobelev is with JSC "Radiophysika", Moscow)
- [90] S. P. Skobelev, P-S Kildal, "Performance of an array of circular waveguides with strip-loaded dielectric hard walls", *IEEE Transactions on Antennas and Propagation*, Vol. 48, No 7, pp 1106-1114, July 2000. (Skobelev is with JSC "Radiophysika", Moscow)

#### **2001: 3**

- [91] K. Rosengren, P-S. Kildal, C. Carlsson, J. Carlsson, "Characterization of Antennas for Mobile and Wireless Terminals in Reverberation Chambers: Improved Accuracy by Platform Stirring", *Microwave and Optical Technology Letters*, Vol. 30, No 20, pp 391-397, Sept 2001
- [92] K. Rosengren, P-S. Kildal, "Study of distributions of modes and plane waves in reverberation chamber for characterization of antennas in multipath environment", *Microwave and Optical Technology Letters*, Vol. 30, No 20, pp 386-391, Sept 2001
- [93] N. Herscovici, Z. Sipus, P-S Kildal, "The cylindrical omnidirectional patch antenna", *IEEE Transactions on Antennas and Propagation*, Vol 49, No 12 Dec 2001, pp 1746-1753, March 2000

#### **2002: 7**

- [94] P-S. Kildal, C. Carlsson, J. Yang, "Measurement of free space impedances of small antennas in reverberation chambers", *Microwave and Optical Technology Letters*, Vol 32, No 2, pp112-115, January 2002
- [95] J. Yang, J. Carlsson, P-S. Kildal, C. Carlsson, "Calculation of self-impedance and radiation efficiency of a dipole near a lossy cylinder with arbitrary cross section by using the moment method and a spectrum of two-dimensional solutions", *Microwave and Optical Technology Letters*, Vol 32, No 2, pp 108-112, January 2002
- [96] S. Skobelev, P-S. Kildal, "Influence of hard corrugated PBG wall design on performance of conical horn antenna", *Microwave and Optical Technology Letters*, Vol 32, No 4, February 2002. (Skobelev is with JSC "Radiophysika", Moscow)
- [97] P-S. Kildal, K. Rosengren, J. Byun, J. Lee, "Definition of effective diversity gain and how to measure it in a reverberation chamber", *Microwave and Optical Technology Letters*, Vol. 34, No 1, pp. 56-59, July 5, 2002. (J. Byun and J. Lee is with Samsung, South Korea)
- [98] P-S. Kildal, C. Carlsson, "Detection of a polarization imbalance in reverberation chambers and how to remove it by polarization stirring when measuring antenna efficiencies", *Microwave and Optical Technology Letters*, Vol. 32, No 2, pp. 145-149, July 20, 2002

- [99] M. Bäckström, O. Lundén, P-S. Kildal, "Reverberation chambers for EMC susceptibility and emission analyses", *Review of Radio Science* 1999-2002, pp. 429-452. (Bäckström and Lundén are with Swedish Defense Research Center, FOI, Linköping)
- [100] J. Yang, P-S. Kildal, "Presentation of the spectral electric and magnetic field integral equations used in G2DMULT for analyzing cylindrical structures of multimaterial regions", *Microwave and Optical Technology Letter*, Vol. 34, No 2, pp 88-93, July 20, 2002

### 2003: 8

- [101] P-S. Kildal, "Measurements of mobile phone antennas in small reverberation chambers", *Automatika*, Zagreb, No 43, pp. 63-68, 1-2/2002
- [102] P-S. Kildal, K. Rosengren, "Electromagnetic analysis of effective and apparent diversity gain of two parallel dipoles", *IEEE Antennas and Wireless Propagation Letters*, Vol. 2, No. 1, pp 9-13, 2003
- [103] U. Frisk, M. Hagström, ..., P-S. Kildal et al (49 authors), "The Odin satellite: I. Radiometer Design and Test", *Astronomy & Astrophysics*, Vol. 402, No. 3, May II, pp.1.27-1.34, 2003.
- [104] S. Skobelev, P-S. Kildal, "Some features of hard strip-loaded conical horn antenna", *IEE Proceedings Microwaves, Optics and Antennas*, Vol. 150, No. 3, pp. 171 -176, June 2003 (Skobelev is with Radiophysika, Moscow).
- [105] S. P. Skobelev, P-S. Kildal, "Analysis of conical quasi-TEM horn with a hard corrugated section", *Special Issue on Metamaterials in IEEE Transactions on Antennas and Propagation*, Vol. 51, No. 10, pp. 2723-2731, October 2003.
- [106] S. P. Skobelev, P-S. Kildal, "Analysis of hard strip-loaded conical horn by the method of generalized scattering matrices", *IEEE Transaction on Antennas and Propagation*, Vol. 51, No. 10, pp. 2918-2925, October 2003.
- [107] Jian Yang, Per-Simon Kildal, "Scattering by screw heads in reflecting surfaces and their effect on the sidelobes of reflector antennas", *Microwave and Optical Technology Letters*, Vol. 38, No. 3, pp. 213-217, 5 August 2003.
- [108] P.-S. Kildal and A. Kishk, "EM Modeling of surfaces with STOP or GO characteristics - artificial magnetic conductors and soft and hard surfaces", *Applied Computational Electromagnetics Society Journal*, Vol. 18, No. 1, pp. 32-40, March 2003. (Kishk is with Univ. of Mississippi).

### 2004: 6

- [109] U. Carlberg, P-S. Kildal, A. Wolfgang, O. Sotoudeh, C. Orlenius, "Calculated and measured absorption cross sections of lossy objects in reverberation chamber", *IEEE Transactions on Electromagnetic Compatibility*, Vol. 46 No. 2, May 2004.
- [110] J. Yang, U. Carlberg, P.-S. Kildal, and M. Ng Mou Kehn, "A fast mode analysis for waveguides of arbitrary cross section with multiple regions by using a spectrum of two-dimensional solutions and asymptotic waveform evaluation", *IEEE Transactions on Microwave Theory and Techniques*, Vol. 52, No. 6, pp 1615-1621, June 2004.
- [111] J. Yang and P-S. Kildal, "A fast algorithm for calculating the radiation pattern in the longitudinal plane of antennas with cylindrical structure by applying asymptotic waveform evaluation in a spectrum of two dimensional solutions", *IEEE Transactions on Antennas and Propagation*, Vol. 52, No. 7, pp 1700-1706, July 2004.
- [112] J. Carlsson and P-S. Kildal, "Physical asymptotic model for a conducting patch and how this enables the inclusion of dielectric substrate in a free-space moment method code", *IEE Proceedings Microwave, Antennas and Propagation*, vol. 151, no. 4, pp. 338-344, Aug 2004.
- [113] S. P. Skobelev and P.-S. Kildal, "Some properties of an open-ended circular waveguide with one- and two-sided ideal hard walls," *Microwave and Optical Technology Letters*, vol. 43, no. 2, Oct. 2004, pp. 160 - 164.
- [114] P.-S. Kildal and K. Rosengren, "Correlation and capacity of MIMO systems and mutual coupling, radiation efficiency and diversity gain of their antennas: Simulations and measurements in reverberation chamber", *IEEE Communications Magazine*, vol. 42, no. 12, pp. 102-112, Dec. 2004.

### 2005: 8

- [115] K. Rosengren and P.-S. Kildal, "Radiation efficiency, correlation, diversity gain, and capacity of a six monopole antenna array for a MIMO system: Theory, simulation and measurement in reverberation chamber", *Proceedings IEE Microwaves Antennas and Propagation*, Vol. 152, No. 1, pp 7-16, February

2005.(Rosengren is with Flextronics Components, Kalmar), see also Erratum published in Vol. 153, No. 4, August 2006

- [116] U. Carlberg, A. Eriksson, P.-S. Kildal, "Efficient computation of high Q resonator realized by thin film multilayer metal/dielectric structure", *Microwave Optical and Technology Letters*, vol. 44, no. 1, pp. 48-51, Jan 2005 (Eriksson is with Dept of Microtechnology and Nanoscience, Chalmers Univ. of Technol.).
- [117] P.-S. Kildal, A. A. Kishk, and S. Maci, "Special issue on artificial magnetic conductors, soft/hard surfaces, and other complex surfaces" (Guest Editorial), *IEEE Transactions on Antennas and Propagation*, vol. 53, no. 1, pp. 2-7, Jan. 2005 (Kishk is with University of Mississippi, Maci is with University of Siena, Italy).
- [118] M. Ng Mou Kehn and P.-S. Kildal, "Miniaturized rectangular hard waveguides for use in multi-frequency phased arrays", *IEEE Transactions on Antennas and Propagation*, vol. 53, no. 1, pp. 100-109, Jan 2005.
- [119] S. P. Skobelev and P.-S. Kildal, "Mode-matching modeling of a hard conical quasi-TEM horn realized by an EBG structure with strips and vias", *IEEE Transactions on Antennas and Propagation*, vol. 53, no. 1, pp. 139-143, Jan 2005.
- [120] S. Raffaelli, Z. Sipus, P.-S. Kildal, "Analysis and measurements of conformal patch array antennas on multilayer circular cylinder", *IEEE Transactions on Antennas and Propagation*, vol. 53, no. 3, pp.1105-1113, March 2005. (Raffaelli is with Ericsson AB)
- [121] J. Yang and P.-S. Kildal, "On the odd-even property of functions for boundary currents over  $kz$  in a spectrum of two-dimensional solutions", *IEEE Antennas and Wireless Propagation Letters*, vol. 4, 2005.
- [122] U. Carlberg, P.-S. Kildal, and J. Carlsson, "Study of antennas in reverberation chamber using method of moments with cavity Green's function calculated by Ewald summation", *IEEE Trans. Electromagn. Compat.*, vol. 47, no. 4, pp. 805-814, Nov. 2005.

### **2006: 7**

- [123] P.-S. Kildal, "Comments on 'Application of double negative materials to increase the power radiated by electrically small antennas'", *IEEE Transactions on Antennas and Propagation*, vol. 54, no. 2, pt 2, pp. 766-766, Feb. 2006.
- [124] R. Olsson, P.-S. Kildal, S. Weinreb, "The Eleven antenna: a compact low-profile decade bandwidth dual polarized feed for reflector antennas", *IEEE Transactions on Antennas and Propagation*, vol. 54, no. 2, pt. 1, pp. 368-375, Feb. 2006 (Sander Weinreb is with California Institute of Technology).
- [125] O. Sotoudeh, P.-S. Kildal, P. Ingvarson, and S. P. Skobelev, "Single- and dual- band multimode hard horn antennas with partly corrugated walls", *IEEE Transactions on Antennas and Propagation*, vol. 54, no. 2, pt. 1, pp. 330-339, Feb. 2006 (Ingvarson is with Saab Ericsson Space, Gothenburg; Skobelev is with Radiophysika, Moscow).
- [126] J. Carlsson and P.-S. Kildal, "Dyadic GO reflection coefficient for PEC/PMC strip surface and application to planar case for dipole radiation", to appear in *Microwave and Optical Technology Letters*, Mar 2006.
- [127] K. Rosengren, J. Carlsson, and P.-S. Kildal, "Maximizing the effective diversity gain of two parallel dipoles by optimizing the source impedance", *Microwave and Optical Technology Letters*, Vol. 48, No. 3, pp. 532-535, March 2006.
- [128] Z. Sipus, N. Burum, S. Skokic, and P.-S. Kildal, "Analysis of spherical arrays of microstrip antennas using moment method in spectral domain", *IET Microwaves, Antennas and Propagation*, Vol. 153, no. 6, pp. 533-543, Dec 2006. (Sipus, Burum, and Skokic are with the University of Zagreb, Croatia)..
- [129] K. Karlsson, J. Carlsson, and P.-S. Kildal, "Reverberation Chamber for Antenna Measurements: Modeling Using Method of Moments, Spectral Domain Techniques, and Asymptote Extraction", *IEEE Transactions on Antennas and Propagation* Vol. 54, No. 11, Part 1, pp 3106 - 3113 Nov. 2006

### **2007: 3**

- [130] E. Rajo Iglesias, M. Caiazzo, L. Inclan-Sanchez, and P.-S. Kildal, "Comparison of bandgaps of mushroom-type EBG surface and corrugated and strip-type soft surfaces", *IET Microwaves, Antennas and Propagation*, Vol. 1, No. 1, pp. 184-189, Feb. 2007. (Rajo Iglesias and Inclan-Sanchez are with Univ. Carlos III of Madrid, Caiazzo is with Univ. of Siena, Italy)
- [131] S. P. Skobelev, P.-S. Kildal, "Modal solutions in dual-depth longitudinally corrugated hard waveguide", *IET Microwaves, Antennas and Propagation*, Vol. 1, No. 4, pp. 827-831, Aug. 2007 (Skobelev is with Radiophysika, Moscow).



- [132] A. Diallo, P. Le Thuc, C. Luxey, R. Staraj, G., Kossiavas, M. Franzén, P.-S. Kildal, "Diversity characterization of optimized two-antenna systems for UMTS handsets", *EURASIP Journal on Wireless Communication and Networking*, Hindawi Publishing Corporation, vol. 2007, Article ID 37574, 9 pages, 2007. (The five first authors are with LEAT, University of Nice-Sophia Antipolis/UMR-CNRS 6071, Franzén is with Bluetest AB)

### **2008: 1**

- [133] Eva Rajo-Iglesias, Luis Inclan-Sanchez, Per-Simon Kildal, "Comparison of bandwidths of mushroom-type EBG surfaces and corrugated and strip-type soft surfaces when used as narrow ground planes", *IET Microwaves, Antennas and Propagation*, Vol. 2, No. 3, pp. 248 - 258, April 2008 (Rajo is with University Carlos III of Madrid)

### **2009: 10 articles**

- [134] U. Carlberg, P.-S. Kildal, J. Carlsson, "Numerical study of position stirring and frequency stirring in loaded reverberation chamber", *IEEE Trans. EMC*, Vol. 51, No. 1, pp. 12-17, March 2009.
- [135] P.-S. Kildal, E. Alfonso, A. Valero-Nogueira, E. Rajo-Iglesias, "Local metamaterial-based waveguides in gaps between parallel metal plates", *IEEE Antennas and Wireless Propagation Letters (AWPL)*, Volume 8, pp. 84-87, 2009.
- [136] J. Yang, X. Chen, N. Wadefalk, P.-S. Kildal, "Design and realization of a linearly polarized Eleven feed for 1-10 GHz", *IEEE Antennas and Wireless Propagation Letters (AWPL)*, Volume 8, pp. 64-68, 2009.
- [137] A. A. Kishk, P.-S. Kildal, "Modeling of soft and hard surfaces using ideal perfect electric conducting/perfect magnetic conducting strip grids", *IET Microwaves, Antennas and Propagation*, vol. 3, pp. 296-302, March 2009. (Kishk is with University of Mississippi)
- [138] M. V. Ivashina, M. Ng Mou Kehn, P.-S. Kildal and R. Maaskant, "Decoupling efficiency of a wide-band Vivaldi focal plane array feeding a reflector antenna", *IEEE Transactions on Antennas and Propagation*, Vol. 57, NO. 2, pp 373-382, Feb. 2009 (Ivashina and Maaskant are with Astron in Netherlands, Ng is with University of Manitoba)
- [139] X. Chen, P.-S. Kildal, C. Orlenius, J. Carlsson, "Channel sounding of loaded reverberation chamber for Over-the-Air testing of wireless devices - coherence bandwidth versus average mode bandwidth and delay spread", *IEEE Antennas and Wireless Propagation Letters*, vol. 8, pp. 678-681, 2009.
- [140] M. Ng Mou Kehn, M. V. Ivashina, P.-S. Kildal and R. Maaskant, "Definition of unifying decoupling efficiency of different array antennas - case study of dense focal plane array feed for parabolic reflector", *AEUE-International Journal of Electronics and Communications*, 2009 - Elsevier, available on line 4 June 2009 (Ivashina and Maaskant are with Astron, Ng is with University of Manitoba)
- [141] A. Valero-Nogueira, E. Alfonso, J. I. Herranz, P.-S. Kildal, "Experimental demonstration of local quasi-TEM gap modes in single-hard-wall waveguides", *IEEE Microwave and Wireless Components Letters*, Vol. 19, No. 9, pp. 536-538, Sept. 2009.
- [142] Y. B. Karandikar, D. Nyberg, N. Jamaly, P.-S. Kildal, "Mode densities in rectangular, cylindrical and spherical cavities in application to the reverberation chamber", *IEEE Trans. EMC*, Vol. 51, No. 4, pp. 1044-1046, Nov. 2009
- [143] E. Rajo-Iglesias, A. Uz Zaman, P.-S. Kildal, "Parallel plate cavity mode suppression in microstrip circuit packages using a lid of nails", *IEEE Microwave and Wireless Components Letters*, Vol. 20, No. 1, pp. 31-33, Dec. 2009.

### **2010: 5 articles**

- [144] D. Nyberg, P.-S. Kildal, J. Carlsson, "Effects of intrinsic radiation Q on mismatch factor of three types of small antennas: single-resonance, gradual-transition and cascaded-resonance types", *IET Microwaves, Antennas & Propagation*, Vol. 4, No. 1, pp. 83-90, Jan. 2010.
- [145] S. P. Skobelev, P.-S. Kildal, "A new type of the quasi-TEM eigenmodes in a rectangular waveguide with one corrugated hard wall", *Progress In Electromagnetics Research*, PIER 102, pp. 143-157, 2010 (Skobelev is with Radiofizika, Moscow).
- [146] K. Karlsson, X. Chen, P.-S. Kildal, J. Carlsson, "Doppler spread in reverberation chamber predicted from measurements during stationary step-wise stirring", *Antennas and Wireless Propagation Letters*, Vol. 9, pp. 497 - 500, 2010.

- [147] M. V. Ivashina, M. Ng Mou Kehn, P.-S. Kildal, R. Maaskant, "Reply to Comments on 'Decoupling efficiency of a wideband Vivaldi focal plane array feeding a reflector antenna'", IEEE Trans. Antennas Propag., Vol. 58, No. 3, pp. 1016-1017, March 2010.
- [148] M. Bosiljevac, Z. Sipus, P.-S. Kildal, "Construction of Green's functions of parallel plates with periodic texture with application to gap waveguides - A plane wave spectral domain approach", IET Microw. Antennas Propag., Vol. 4, Iss. 11, pp. 1799-1810, Nov. 2010 (Bosiljevac and Sipus are with University of Zagreb).

### **2011: 7 articles to appear**

- [149] A. Polemi, S. Maci, P.-S. Kildal, "Dispersion characteristics of metamaterial-based parallel-plate ridge gap waveguide realized by bed of nails", accepted for publication in IEEE Transactions on Antennas and Propagation, July 2010 (Polemi is with University of Modena Via Vignolese, Maci is with University of Siena)
- [150] E. Rajo-Iglesias, P.-S. Kildal, "Numerical studies of bandwidth of parallel plate cut-off realized by bed of nails, corrugations and mushroom-type EBG for use in gap waveguides", accepted for publication to IET Microwaves, Antennas & Propagation, July 2010.
- [151] J. Yang, M. Pantaleev, P.-S. Kildal, Y. Karadikar, L. Helldner, B. Klein, N. Wadefalk, C. Beaudoin, "Cryogenic 2-13 GHz Eleven feed for reflector antennas in future wideband radio telescopes", to appear in Special issue on Antennas for Next Generation Radio Telescopes in IEEE Transactions on Antennas and Propagation, March 2011. (The authors are with three departments at Chalmers, except B. Klein who is with Hartebeesthoek Radio Astronomy Observatory, South Africa and C. Beaudoin who is with MIT Haystack Radio Observatory, USA)
- [152] J. Yang, P.-S. Kildal, "Optimizing large log-periodic array by computing a small part of it", to appear in Special issue on Antennas for Next Generation Radio Telescopes in IEEE Transactions on Antennas and Propagation, March 2011
- [153] P.-S. Kildal, A. Uz Zaman, E. Rajo-Iglesias, E. Alfonso, A. Valero-Nogueira, "Design and experimental verification of ridge gap waveguides in bed of nails for parallel plate mode suppression", accepted for publication in IET Microwaves, Antennas & Propagation, September 2010. (Rajo is with Carlos III Madrid, Valero is with UPV Valencia)
- [154] N. Jamaly, P.-S. Kildal, J. Carlsson, "Compact formulas for diversity gain of two-port antennas", accepted for publication in IEEE Antenna and Wireless Propagation Letters, August 2010.
- [155] P.-S. Kildal, A. Kishk, M. Bosiljevac, Z. Sipus, "The PMC-amended DB boundary - A canonical EBG surface", accepted for publication in Applied Computational Electromagnetics Society (ACES) Journal, Nov. 2010.

### **Books**

- [1] P.-S. Kildal, Foundations of Antennas - A Unified Approach, Studentlitteratur, Lund, Sweden, 2000 (<http://www.studentlitteratur.se/antennas>, see also [www.amazon.com](http://www.amazon.com)).
- [156] P.-S. Kildal, C. Orlenius, "Multipath Techniques for Handset/Terminal Antennas", chapter in book by J. Volakis (Ed.), *Antenna Engineering Handbook*, McGraw-Hill, June 2007.

### **Papers at international conferences (not included)**

For brevity these are not included.

### **Magazine and newspaper articles**

#### **1997**

"Riktad antenn minskar strålningen", Forskning och Framsteg, Nr 7, okt-nov 1997 (COMHAT AB)

#### **1998**

"Mobiltelefoni har lyft svensk antennforskning", Elektroniktidningen, Nr 98-14, 1998 (COMHAT AB)

"Sveriges förste EMC-doktor", Provning och Forskning, Nr 3, 1998 (Jan Carlsson)

“Han är Sveriges förste EMC-doktor”, EMC Magazine, Nr 5, 1998 (Jan Carlsson)

#### 1999

“Forskar för säkrare samtal”, Teknikvetenskapliga forskningsrådets årsredovisning, 1998 (Björn Lindmark)  
“Mobilantenner ny svensk miljardindustri“ Ny Teknik, 1999:22 (COMHAT AB)  
“En antenn riktad mot världen”, Teknik i Tiden, Nr 4, Dec 1999 (COMHAT AB)

#### 2000

“Billigare radiolänkar med kompakt antenn”, Elektroniktidningen, Nr 3, 2000 (COMHAT AB)  
“Mobiltelefonin skapar tiotusentals nya jobb”, Ny Teknik, Nr 8, 2000 (COMHAT AB)  
“Comhat i Mölndal nyanställer”, Göteborgs-Posten, 2000-02-02, sid 34 (COMHAT AB)  
“Uppstickare i antennbranschen”, Ny Teknik, Nr 8, sid 23, 2000 (COMHAT AB)  
“Svårt veta vad företagen gör”, Ny Teknik, Nr 21, sid 24, 2000 (COMHAT AB)  
“Chalmers utvecklar billigare SAR-testare”, Elektroniktidningen, Nr 15, Okt 2000 (Bluetest AB)  
“Review of - Foundation of Antennas - A unified Approach”, IEEE Antennas and Propagation Magazine, Vol 42, No 5, Oct 2000 (Kildals's text book)

#### 2001

“Mobiltelefoner skall TCO-märkas”, Metro, 2001-01-22 (Bluetest AB)  
“Svensk mätteknik vässar framtidens mobilantenner”, Elektroniktidningen, Nr 2, sid 1, 22, 2001 (Bluetest AB)  
“Minimalt provrum för terminalantenner”, Elektroniktidningen, Nr 2, sid 22, 2001 (Bluetest AB)  
“Hans huvud testar framtidens mobiler”, Aftonbladet, , sid 44-45, 2001-05-25 (Bluetest AB)  
“Mobiler och antenner kan samarbeta bättre”, Elektroniktidningen, sid 30, 2001-09-14 (Bluetest AB)  
“Hårda gränsvärden när TCO börjar märka mobiltelefoner”, Ny Teknik, 2001-10  
Chalmers new measurement method for mobile phones was mentioned in the news on TV4 (Nyheterna TV4), 19 Nov 2001.  
“TCO ställer hårda krav på mobiltelefoner”, Borås Tidning, sid 4, 2001-11  
“Ericsson - inte nu igen!”, Ny Teknik, sid 2, 2001-12  
“TCO-märkning - affärsidé och ingen standard”, Ny Teknik, sid 2, 2001-12

#### 2002

“Hur mycket strålar din mobiltelefon?”, Provning och Forskning, sid 10-11, 2002-03  
“Västsvenska antennbolag slås ihop”, Göteborgs-Posten 2002-05-25

#### 2003

“Strålning från mobiltelefoner”, brif note with photo of Bluetest chamber in Chalmers Annual Report 2002 (<http://www.chalmers.se/HyperText/KortInfo-E.html>)

#### 2004

“Cheap testing of Bluetooth with Bluetest chamber (in Swedish)”, Elektroniktidningen, Nr 1, p. 10, 23rd January 2004.

#### 2005

“Bara två av fem klarar strålningstest - men stor osäkerhet råder om riskerna med mobiltelefoni”, Göteborgsposten 2005-05-11, sid 63.

#### 2006

“Nu står antenner högst på agenda””, Ny teknik, 2006-06-07 (Chase is mentioned)  
“Forskare och entreprenör lyckad kombination”, Ny teknik, 2006-06-14 (about Comhat)  
“Storslam för Chalmers från VINNOVA”, press release from VINNOVA 2006-06-20 (about Chase and other VINN Excellence centers)  
“Case, ett Vinn Excellence Center på Chalmers - Intervju med Per-Simon Kildal”, BusinessGöteborg, 2006-09-29  
“Omstart för Bluetest”, Elektroniktidningen 2006-10-26  
“Växling gav vd-jobb”, Göteborgsposten, 2006-11-02 (about Bluetest)

“Hoppas på strålände affärer”, Göteborgsposten, 2006-11-02

“Vinnande antennforskning”, Chalmers Magazine, 2006-11-24 (about Chase and Prof. Kildal)

## 2007

“Mikrovåger sprider hälsa med Chase”, i Business Region Göteborgs annonsbilaga till en dagstidning, 070413  
“Mobilantennen mäts bäst i modväxlande kammare”, Elektronik i Norden, nr 17, 2 Nov. 2007 (about reverberation chambers for measuring mobile terminals, as developed by Bluetest and Chalmers)

## 2008

Mats Andersson, “Very fast measurements of wireless devices with small antennas in reverberation chamber”, Microwave Engineering Europe, Jan/Feb 2008 (about reverberation chamber for measuring mobile terminals as developed by Chalmers and spin-off company Bluetest AB)

“Iphone 3G antenna tests”, Göteborgsposten (GP), 25 April 2008 (about testing in Bluetest reverberation chamber to check rumors about bad performance of Iphone 3G, the web version)

<http://www.gp.se/gp/jsp/Crosslink.jsp?d=857&a=440573> had 25000 visitors and became the most read article the last seven days in GP, the article spread to web portals all over the world in hours)

“More testing: Nothing wrong with Iphone's antennas”, GP, 27 April 2008 (follow-up of the previous article, with more results, see <http://www.gp.se/gp/jsp/Crosslink.jsp?d=400&a=441105>)

## 2009

“Trådlös teknik testas för framtiden”, Göteborgs-Posten 27 October 2009, (about Bluetest AB and their measurement technology developed at Chalmers, interview with CEO Mats Andersson)

“Echokammern: Eine Revolution in der Antennen-Messtechnik”, German web newspaperElektroniknet.de,28October2009.

<http://www.elektroniknet.de/home/messentesten/produkte/uebersicht/l/hf-messgeraete/p/d/echokammern-eine-revolution-in-der-antennen-messt/> (about Bluetest AB and their revolutionary measurement technology developed at Chalmers)

“Web movie announcement of Bluetest AB by ALMI Invest”, FöretagsTV, to be published soon, testmovie available from 2 November at <http://www.foretagstv.com/channel.php?id=50153>

“Testkammare- En strålände affär” (Test chamber - A brilliant business), ALMI Nytt nr 3, 2009, A newsletter from ALMI Företagspartner, see

[http://www.almi.se/Global/Moderbolag/Dokument/Nyhetsbrev/ALMI\\_Nytt\\_0903\\_low.pdf](http://www.almi.se/Global/Moderbolag/Dokument/Nyhetsbrev/ALMI_Nytt_0903_low.pdf)

## Invited long presentations

Here is only included long invited presentation, and not invited presentations of 20 min duration or less, except for in a few special cases.

### **1991-1993: Soft and hard surfaces (19 places worldwide)**

*P-S. Kildal has as a distinguished lecturer of IEEE Antennas and Propagation Society during 1991-1993 given the 45 min lecture “Artificially soft and hard surfaces in electromagnetics and their application” 19 places worldwide.*

### **1990-1992: Reflector antenna analysis and design ( 4 places worldwide)**

### **1991-1993 and later: Arecibo radio telescope antenna (13 places worldwide)**

*P-S. Kildal has as a distinguished lecturer of IEEE Antennas and Propagation Society during 1991-1993 and also later given the 45 min lecture “Development of a dual-reflector feed for the Arecibo radiotelescope” at 13 places worldwide.*

### **2001-2007: Bandgap surfaces and soft and hard surfaces (14 places worldwide)**

*Per-Simon Kildal has given 45 minutes presentations about electromagnetic bandgap materials, artificial magnetic conductors and soft and hard surfaces at 14 places worldwide.*

### ***Since 2001: Reflector antennas and feeds (7 places worldwide)***

- [1] Guest lecture, “Large reflector antennas and feeds”, in connection with involvement in US SKA project, JPL, 2002
- [2] Guest lecture, NTNU, Trondheim, September 2006, “Overview of research at Chalmers” (main emphasis on Eleven feed)
- [3] Presentation at Commemoration Ceremony in Memory of Professor Tor Hagfors, 23 February 2007, Max-Planck-Institute for Solar System Research, Kathlenburg-Lindau, Germany.
- [4] Tutorial presentations about “Reflector antennas: past, present and future”, and about “Development of Eleven feed”, at GMRT, Tata Institute of Fundamental Research, Pune, India, Febr. 2007 (together ca 3 hours)
- [5] Tutorial lecture: “Characterizing FPA-fed reflectors in terms of classical subefficiencies and array methods”, SKA DS MCCT Technical Workshop on 'Design of Wideband Receiving Array Systems', Dwingeloo, The Netherlands, 26-30 November 2007.
- [6] Tutorial lecture: “Measurements of the mutual coupling and radiation efficiencies of dense wideband arrays in reverberation chamber.”, SKA DS MCCT Technical Workshop on 'Design of Wideband Receiving Array Systems', Dwingeloo, The Netherlands, 26-30 November 2007.
- [7] “Progress report on developing Eleven feed for VLBI2010 and SKA frequency bands”, Fifth IVS General Meeting, St. Petersburg, Russia, March 3-6, 2008 (IVS = International VLBI Service for Geodesy and Astrometry)

### ***Since 2001: Reverberation chamber techniques (30 places + 3 keynote worldwide)***

*P-S. Kildal has given 30-45 minutes presentation about multipath characterization of small antennas and wireless terminals in reverberation chamber at 34 places worldwide, including the following keynote speaker presentations:*

- [1] *LAPC 2005 Loughborough Antennas and Propagation Conference, April 4-6, 2005*
- [2] *2010 International Workshop on Antenna Technology (iWAT 2010), 1-3 March 2010, Lisbon, Portugal.*
- [3] *European Conference on Antennas and Propagation, EuCAP2011, Rome, April 2011. Invitation has been received.*

## **Short courses**

### ***Course name: Foundations of Antennas and Antenna Design Using Mathcad (3 conferences)***

This half day course by Per-Simon Kildal was given at 3 conferences in 1999-2002.

### ***Course name: Measuring Small Antennas and Mobile Phones in Reverberation Chambers (15 conferences)***

Prof Kildal and Charlie Orleinus (and sometimes Jan Carlsson) have given half or full day short courses about measurements in reverberation chambers based on only own material at the following conferences and companies at 15 conferences since 2002.

### ***Course name: Theory and Applications of PBG Structures Used as Artificial Magnetic Conductors and Soft and Hard Surfaces (9 conferences)***

Courses given by Per-Simon Kildal (PSK), Stefano Maci (SM) and David Sievenpiper (DS) at 9 conferences during 2002-2007.