

1995 Index

IEEE Microwave and Guided Wave Letters

Vol. 5

This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1995, and items from previous years that were commented upon or corrected in 1995.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

It is always necessary to refer to the primary entry in the Author Index for the exact title, coauthors, and comments/corrections.

AUTHOR INDEX

A

- Abdelmonem, A.**, and K.A. Zaki. Slit-coupled ridge waveguide T-junctions; *MGWL Feb 95* 40-41
- Aikawa, M.**, see Tokumitsu, T., *MGWL Nov 95* 411-413
- Alimenti, F.**, P. Mezzanotte, L. Roselli, and R. Sorrentino. Efficient analysis of waveguide components by FDTD combined with time domain modal expansion; *MGWL Oct 95* 351-353
- Alinikula, P.**, see Pekonen, O.P.M., *MGWL Dec 95* 432-434
- Allam, R.**, C. Kolanowski, D. Theron, and Y. Crosnier. An HEMT with an integrated on-drain capacitor as basis of a hybrid mixer; *MGWL Mar 95* 76-78
- Allam, R.**, C. Kolanowski, D. Theron, and Y. Crosnier. Subharmonic gate mixer based on a multichannel HEMT; *MGWL Apr 95* 122-123
- Allen, B.R.**, see Aust, M., *MGWL Jan 95* 12-14
- Allen, B.R.**, see Wang, H., *MGWL Nov 95* 388-390
- Allen, S.T.**, see Bhattacharya, U., *MGWL Feb 95* 50-52
- Andersson, T.**, see Delgado, G., *MGWL Jun 95* 198-200
- Andrew, W.V.**, C.A. Balanis, and P.A. Tirkas. A comparison of the Berenger perfectly matched layer and the Lindman higher-order ABC's for the FDTD method; *MGWL Jun 95* 192-194
- An Ping Zhao, A.V.** Raisanen, and S.R. Cvetkovic. A fast and efficient FDTD algorithm for the analysis of planar microstrip discontinuities by using a simple source excitation scheme; *MGWL Oct 95* 341-343
- Antar, Y.M.M.**, see Keller, M.G., *MGWL Nov 95* 376-378
- Aoki, I.**, see Mernyei, F., *MGWL May 95* 139-141
- Apostolakis, P.J.**, see Feng, M., *MGWL May 95* 156-158
- Arndt, F.**, see Beyer, R., *MGWL Jan 95* 9-11
- Aust, M.**, H. Wang, M. Biedenbender, R. Lai, D.C. Streit, P.H. Liu, G.S. Dow, and B.R. Allen. A 94-GHz monolithic balanced power amplifier using 0.1- μ m gate GaAs-based HEMT MMIC production process technology; *MGWL Jan 95* 12-14

B

- Back Kwang-Hyun**, see Kwang-Hyun Baek, *MGWL Jan 95* 3-5
- Balanis, C.A.**, see Andrew, W.V., *MGWL Jun 95* 192-194
- Basu, S.**, S.A. Maas, and T. Itoh. Piecewise stability analysis in microwave circuits; *MGWL May 95* 159-160
- Basu, S.**, S.A. Maas, and T. Itoh. Quasi-periodic route to chaos in a microwave doubler; *MGWL Jul 95* 224-226
- Basu, S.**, S.A. Maas, and T. Itoh. Experimental and numerical verification of the cause of Hopf bifurcation in a microwave doubler; *MGWL Sep 95* 293-295
- Benson, T.M.**, see Trenkic, V., *MGWL Mar 95* 79-80
- Berenz, J.**, see Wang, H., *MGWL May 95* 150-152
- Berenz, J.**, see Huei Wang, *MGWL Sep 95* 281-283
- Beyer, R.**, and F. Arndt. Efficient modal analysis of waveguide filters including the orthogonal mode coupling elements by an MM/FE method; *MGWL Jan 95* 9-11
- Bhattacharya, U.**, S.T. Allen, and M.J.W. Rodwell. DC-725 GHz sampling circuits and subpicosecond nonlinear transmission lines using elevated coplanar waveguide; *MGWL Feb 95* 50-52
- Biedenbender, M.**, see Aust, M., *MGWL Jan 95* 12-14
- Bing-Zhong Wang.** Small-hole formalism for the FDTD simulation of small-hole coupling; *MGWL Jan 95* 15-17

Bing-Zhong Wang. Enhanced thin-slot formalism for the FDTD analysis of thin-slot penetration; *MGWL May 95* 142-143

Block, T., see Kobayashi, K.W., *MGWL Sep 95* 311-312

Block, T.R., see Wang, H., *MGWL Nov 95* 388-390

Block, T.R., see Kobayashi, K.W., *MGWL Dec 95* 442-444

Block, T.R., see Kobayashi, K.W., *MGWL Dec 95* 457-459

Bonte, B., see Gaquiere, C., *MGWL Aug 95* 243-245

Bosisio, R.G., see Rahal, A., *MGWL Nov 95* 368-370

C

- Caorsi, S.**, P. Fernandes, and M. Raffetto. Edge elements and the inclusion condition ~EM eigenproblem; *MGWL Jul 95* 222-223
- Chakrabarty, S.B.**, see Das, B.N., *MGWL Jun 95* 186-188
- Chan, R.Y.**, and J.M. Liu. Waveguide input method for time-domain wave propagation algorithms; *MGWL Aug 95* 246-248
- Chang, K.-W.**, see Wang, H., *MGWL Nov 95* 388-390
- Chang, Y.**, see Fetterman, H.R., *MGWL Nov 95* 414-416
- Chang Kai**, see Zhengping Ding, *MGWL Aug 95* 264-266
- Chao, P.C.**, see Smith, P.M., *MGWL Jul 95* 230-232
- Chen, B.**, D.G. Fang, and B.H. Zhou. Modified Berenger PML absorbing boundary condition for FD-TD meshes; *MGWL Nov 95* 399-401
- Chen, Y.K.**, see Lin, J., *MGWL Nov 95* 379-381
- Cheng-Chih Yang**, see Huei Wang, *MGWL Sep 95* 281-283
- Chen Seng-Woon**, see Seng-Woon Chen, *MGWL Jun 95* 201-203
- Chew, W.C.**, and J.H. Lin. A frequency-hopping approach for microwave imaging of large; *MGWL Dec 95* 439-441
- Chew Siou Teck**, see Chien-Nan Kuo, *MGWL Jul 95* 216-218
- Chi, J.C.L.**, J.A. Lester, Y. Hwang, P.D. Chow, and M.Y. Huang. A 1-W high-efficiency Q-band MMIC power amplifier; *MGWL Jan 95* 21-23
- Chien-Nan Kuo**, V.A. Thomas, Siou Teck Chew, B. Houshmand, and T. Itoh. Small signal analysis of active circuits using FDTD algorithm; *MGWL Jul 95* 216-218
- Chien-Rong Yang**, see Gong-Ru Lin, *MGWL Oct 95* 335-337
- Chinn, G.C.**, see Epp, L.W., *MGWL Apr 95* 111-113
- Chow, P.D.**, see Chi, J.C.L., *MGWL Jan 95* 21-23
- Christopoulos, C.**, see Trenkic, V., *MGWL May 95* 79-80
- Ci-Ling Pan**, see Gong-Ru Lin, *MGWL Oct 95* 335-337
- Coad, S.**, see Tuck, D., *MGWL Apr 95* 105-107
- Cowles, J.C.**, see Wang, H., *MGWL Nov 95* 388-390
- Crosnier, Y.**, see Allam, R., *MGWL Mar 95* 76-78
- Crosnier, Y.**, see Allam, R., *MGWL Apr 95* 122-123
- Crosnier, Y.**, see Gaquiere, C., *MGWL Aug 95* 243-245
- Crowe, T.W.**, see Koh, P.J., *MGWL Mar 95* 73-75
- Cvetkovic, S.R.**, see An Ping Zhao, *MGWL Oct 95* 341-343

D

- Danwei Xeu**, see Jiayuan Fang, *MGWL Jan 95* 6-8
- Das, B.N.**, S.B. Chakrabarty, and A.K. Mallick. Cutoff frequencies of guiding structures with circular and planar boundaries; *MGWL Jun 95* 186-188
- Das, N.K.**, see Herscovici, N.I., *MGWL Jan 95* 24-25
- Davidovitz, M.** Reconstruction of the S-matrix for a 3-port using measurements at only two ports; *MGWL Oct 95* 349-350
- Dee-Son Pan**, see Runhua Sun, *MGWL Jan 95* 18-20
- Delgado, G.**, J. Johansson, A. Larsson, and T. Andersson. Optically controlled spatial modulation of (sub-)millimeter waves using nipi-doped semiconductors; *MGWL Jun 95* 198-200
- Delisle, G.Y.**, see LeBlanc, M., *MGWL Jul 95* 233-234
- De Loach, B.C., Jr.**, see Martin, A., *MGWL Oct 95* 329-331
- De Moerloose, J.**, and M.A. Stuchly. Behavior of Berenger's ABC for evanescent waves; *MGWL Oct 95* 344-346
- Deng, S.-M.**, M.-D. Wu, and P. Hsu. Impedance characteristics of microstrip antennas excited by coplanar waveguides with inductive or capacitive coupling slots; *MGWL Nov 95* 391-393
- Dia, R.M.**, see Wang, H., *MGWL May 95* 150-152
- Dib, N.**, M. Krumpholz, E. Tentzeris, and L.P.B. Katehi. Comments on "Numerical errors in the computation of impedances by FDTD method and ways to eliminate them" [with reply]; *MGWL Oct 95* 354-355
- Ding Zhengping**, see Zhongping Ding, *MGWL Aug 95* 264-266
- Diskus, C.G.**, see Springer, A.L., *MGWL Apr 95* 114-116
- Dow, G.S.**, see Aust, M., *MGWL Jan 95* 12-14

- Dow, G.S., *see* Wang, H., *MGWL Nov 95* 388-390
 Dreher, A., and T. Rother. New aspects of the method of lines; *MGWL Nov 95* 408-410
 Duh, K.H.G., *see* Smith, P.M., *MGWL Jul 95* 230-232

E

- Eisele, H., and G.I. Haddad. High-performance InP Gunn devices for fundamental-mode operation in D-band (110-170 GHz); *MGWL Nov 95* 385-387
 El Khoury, S. The design of active floating positive and negative inductors in MMIC technology; *MGWL Oct 95* 321-323
 Epp, L.W., D.J. Hoppe, and G.C. Chinn. Scattering from ferrite bodies of revolution using a hybrid approach; *MGWL Apr 95* 111-113
 Erben, U., M. Wahl, A. Schuppen, and H. Schumacher. Class-A SiGe HBT power amplifiers at C-band frequencies; *MGWL Dec 95* 435-436
 Espiau, F.M., *see* Fetterman, H.R., *MGWL Nov 95* 414-416

F

- Fang, D.G., *see* Chen, B., *MGWL Nov 95* 399-401
 Fang, J., and Z. Wu. Generalized perfectly matched layer - An extension of Berenger's perfectly matched layer boundary condition; *MGWL Dec 95* 451-453
 Fang Jiayuan, *see* Jiayuan Fang, *MGWL Jan 95* 6-8
 Fan Lu, *see* Zhengping Ding, *MGWL Aug 95* 264-266
 Favre, J., *see* Gaquiere, C., *MGWL Aug 95* 243-245
 Feng, M., D.R. Scherrer, P.J. Apostolakis, J.R. Middleton, M.J. McPartlin, B.D. Lautenvasser, and J.D. Oliver, Jr. Ka-band monolithic low-noise amplifier using direct ion-implanted GaAs MESFETs; *MGWL May 95* 156-158
 Fernandes, P., *see* Caorsi, S., *MGWL Jul 95* 222-223
 Ferrero, A., and F. Sanpietro. A simplified algorithm for leaky network analyzer calibration; *MGWL Apr 95* 119-121
 Fetterman, H.R., Y. Chang, D.C. Scott, S.R. Forrest, F.M. Espiau, M. Wu, D.V. Plant, J.R. Kelly, A. Mather, W.H. Steier, R.M. Osgood, Jr., H.A. Haus, and G.J. Simonis. Optically controlled phased array radar receiver using SLM switched real time delays; *MGWL Nov 95* 414-416
 Forrest, S.R., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Free, C.E., *see* Rossek, S.J., *MGWL Mar 95* 81-83
 Fu, S.T., *see* Smith, P.M., *MGWL Jul 95* 230-232
 Furse, C.M., and O.P. Gandhi. Why the DFT is faster than the FFT for FDTD time-to-frequency domain conversions; *MGWL Oct 95* 326-328

G

- Gandhi, O.P., *see* Furse, C.M., *MGWL Oct 95* 326-328
 Gaquiere, C., B. Bonte, D. Theron, Y. Crosnier, and J. Favre. Analysis of the source inductance effect on the power performance of high development HEMTs in the Ka-Band; *MGWL Aug 95* 243-245
 Gedney, S.D., and U. Navsariwala. An unconditionally stable finite element time-domain solution of the vector wave equation; *MGWL Oct 95* 332-334
 Gong-Ru Lin, Chien-Rong Yang, and Ci-Ling Pan. Laser-diode-based optoelectronic subharmonic phase-locked loop; *MGWL Oct 95* 335-337
 Gothard, G.K., S.M. Rao, T.K. Sarkar, and M.S. Palma. Finite element solution of open region electrostatic problems incorporating the measured equation of invariance; *MGWL Aug 95* 252-254

H

- Haddad, G.I., *see* Eisele, H., *MGWL Nov 95* 385-387
 Hai-Young Lee, *see* Sang-Ki Yun, *MGWL Sep 95* 296-298
 Hamm, R.A., *see* Lin, J., *MGWL Nov 95* 379-381
 Haus, H.A., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Herben, M.H.A.J., *see* Hristov, H.D., *MGWL Aug 95* 249-251
 Herczfeld, P.R., *see* Yost, T.A., *MGWL Sep 95* 287-289
 Herscovici, N.I., N.K. Das, S. Papatheodorou, and D.M. Pozar. Aperture coupling between adjacent layers using a new stripline geometry; *MGWL Jan 95* 24-25
 He-Young Sung, *see* Kwang-Hyun Baek, *MGWL Jan 95* 3-5
 Higgins, J.A., E.A. Sovero, and W.J. Ho. 44-GHz monolithic plane-wave amplifiers; *MGWL Oct 95* 347-348
 Hill, D., A. Khatibzadeh, W. Liu, T. Kim, and P. Ikalainen. Novel HBT with reduced thermal impedance; *MGWL Nov 95* 373-375
 Hinrikus, H., *see* Krasavin, J., *MGWL Jun 95* 177-179
 Ho, P., *see* Smith, P.M., *MGWL Jul 95* 230-232
 Ho, W.J., *see* Higgins, J.A., *MGWL Oct 95* 347-348

- Hong, J.S., and M.J. Lancaster. Edge-coupled microstrip loop resonators with capacitive loading; *MGWL Mar 95* 87-89
 Hong, J.S., and M.J. Lancaster. Development of new microstrip pseudo-interdigital bandpass filters; *MGWL Aug 95* 261-263
 Hong, J.S., and M.J. Lancaster. Microstrip bandpass filter using degenerate modes of a novel meander loop resonator; *MGWL Nov 95* 371-372
 Hoppe, D.J., *see* Epp, L.W., *MGWL Apr 95* 111-113
 Horiie, Y., *see* Itoh, Y., *MGWL Feb 95* 48-49
 Houshmand, B., *see* Chien-Nan Kuo, *MGWL Jul 95* 216-218
 Hristov, H.D., and M.H.A.J. Herben. Quarter-wave Fresnel zone planar lens and antenna; *MGWL Aug 95* 249-251
 Hsu, P., *see* Deng, S.-M., *MGWL Nov 95* 391-393
 Huang, M.Y., *see* Chi, J.C.L., *MGWL Jan 95* 21-23
 Hwei Wang, D.C.-W. Lo, R. Lai, Cheng-Chih Yang, and J. Berenz. Cryogenically cooled performance of a monolithic 44-GHz InP-based HEMT low-noise amplifier; *MGWL Sep 95* 281-283
 Humphrey, D.A., *see* Lin, J., *MGWL Nov 95* 379-381
 Huynen, I., G. Verstraeten, and A. Vander Vorst. Theoretical and experimental evidence of nonreciprocal effects on magnetostatic forward volume wave resonators; *MGWL Jun 95* 195-197
 Huynen, I., *see* Vanhoenacker, D., *MGWL Aug 95* 255-257
 Hwang, Y., *see* Chi, J.C.L., *MGWL Jan 95* 21-23
 Hwei-Yuan Liu, and Way-Seen Wang. Beam propagation analysis of the nonlinear tapered optical waveguide; *MGWL Feb 95* 42-44

I

- Ikalainen, P., *see* Hill, D., *MGWL Nov 95* 373-375
 Ishikawa, T., *see* Zhewang Ma, *MGWL Apr 95* 117-118
 Ishikawa, T., and E. Yamashita. Experimental results on buried microstrip lines for constructing high-density microwave integrated circuits; *MGWL Dec 95* 437-438
 Ito, Y., *see* Itoh, Y., *MGWL Feb 95* 59-61
 Itoh, T., *see* Runhua Sun, *MGWL Jan 95* 18-20
 Itoh, T., *see* Basu, S., *MGWL May 95* 159-160
 Itoh, T., *see* Chien-Nan Kuo, *MGWL Jul 95* 216-218
 Itoh, T., *see* Basu, S., *MGWL Jul 95* 224-226
 Itoh, T., *see* Basu, S., *MGWL Sep 95* 293-295
 Itoh, Y., Y. Horiie, K. Nakahara, N. Yoshida, T. Katoh, and T. Takagi. A V-band, high gain, low noise, monolithic PHEMT amplifier mounted on a small hermetically sealed metal package; *MGWL Feb 95* 48-49
 Itoh, Y., K. Nakahara, T. Sakura, N. Yoshida, T. Katoh, T. Takagi, and Y. Ito. W-band monolithic low noise amplifiers for advanced microwave scanning radiometer; *MGWL Feb 95* 59-61
 Itoh, Y., M. Mochizuki, M. Kohn, H. Masuno, T. Takagi, and Y. Mitsui. A 5-10 GHz 15-W GaAs MESFET amplifier with flat gain and power responses; *MGWL Dec 95* 454-456
 Ittipiboon, A., *see* Keller, M.G., *MGWL Nov 95* 376-378
 Ivanov, E.N., *see* Tobar, M.E., *MGWL Apr 95* 108-110

J

- Jevtic, J.O., and R. Lee. How invariant is the measured equation of invariance?; *MGWL Feb 95* 45-47
 Jian-Guo Ma. Comments on "Plane wave excitation of an infinite dielectric rod" (and reply); *MGWL May 95* 164
 Jiayuan Fang, and Danwei Xeu. Numerical errors in the computation of impedances by the FDTD method and ways to eliminate them; *MGWL Jan 95* 6-8
 Johansson, J., *see* Delgado, G., *MGWL Jun 95* 198-200
 Johansson, M.E., *see* Zhang, D., *MGWL Nov 95* 405-407
 Jones, J.R., S.H. Jones, G.B. Tait, and M.F. Zybur. Correction to "Heterostructure barrier varactor simulation using an integrated hydrodynamic device/harmonic-balance circuit analysis technique" (Dec 94 411-413); *MGWL Feb 95* 62
 Jones, S.H., *see* Jones, J.R., *MGWL Feb 95* 62
 Joubert, J. A transverse slot in the broad wall of inhomogeneously loaded rectangular waveguide for array applications; *MGWL Feb 95* 37-39

K

- Kai Chang, *see* Zhengping Ding, *MGWL Aug 95* 264-266
 Kao, M.-Y., *see* Smith, P.M., *MGWL Jul 95* 230-232
 Karlsson, C., N. Rorsman, and H. Zirath. A monolithically integrated F-band resistive InAlAs/InGaAs/InP HFET mixer; *MGWL Nov 95* 394-395
 Katehi, L.P., *see* Weller, T.M., *MGWL May 95* 153-155
 Katehi, L.P.B., *see* Dib, N., *MGWL Oct 95* 354-355
 Katehi, L.P.B., *see* Krumpholtz, M., *MGWL Nov 95* 382-384
 Katoh, T., *see* Itoh, Y., *MGWL Feb 95* 48-49

- Kato, T., *see* Itoh, Y., *MGWL Feb 95* 59-61
- Keam, R. Cylindrical post with gap in a rectangular waveguide; *MGWL May 95* 147-149
- Keller, M.G., D.J. Roscoe, M.B. Oliver, R.K. Mongia, Y.M.M. Antar, and A. Ittipiboon. Active aperture-coupled rectangular dielectric resonator antenna; *MGWL Nov 95* 376-378
- Kelly, J.R., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
- Khatibzadeh, A., *see* Hill, D., *MGWL Nov 95* 373-375
- Kim, T., *see* Hill, D., *MGWL Nov 95* 373-375
- Kobayashi, K.W., L. Tran, A.K. Oki, and D.C. Streit. A 50 MHz-30 GHz broadband co-planar waveguide SPDT PIN diode switch with 45-dB isolation; *MGWL Feb 95* 56-58
- Kobayashi, K.W., *see* Streit, D.C., *MGWL Apr 95* 124-126
- Kobayashi, K.W., and A.K. Oki. A DC-10 GHz high gain-low noise GaAs HBT direct-coupled amplifier; *MGWL Sep 95* 308-310
- Kobayashi, K.W., L.T. Tran, A.K. Oki, T. Block, and D.C. Streit. A coplanar waveguide InAlAs/InGaAs HBT monolithic Ku-band VCO; *MGWL Sep 95* 311-312
- Kobayashi, K.W., D.K. Umemoto, T.R. Block, A.K. Oki, and D.C. Streit. A novel monolithic LNA integrating a common-source HEMT with an HBT Darlington amplifier; *MGWL Dec 95* 442-444
- Kobayashi, K.W., D.K. Umemoto, T.R. Block, A.K. Oki, and D.C. Streit. A wideband HEMT cascode low-noise amplifier with HBT bias regulation; *MGWL Dec 95* 457-459
- Koh, P.-J., W.C.B. Peatman, and T.W. Crowe. Millimeter wave tripler evaluation of a metal/2-DEG Schottky diode varactor; *MGWL Mar 95* 73-75
- Kohiyama, K., *see* Tokumitsu, T., *MGWL Nov 95* 411-413
- Kohno, M., *see* Itoh, Y., *MGWL Dec 95* 454-456
- Kolanowski, C., *see* Allam, R., *MGWL Mar 95* 76-78
- Kolanowski, C., *see* Allam, R., *MGWL Apr 95* 122-123
- Konno, R., *see* Kukutsu, N., *MGWL Sep 95* 299-301
- Kopf, R.F., *see* Lin, J., *MGWL Nov 95* 379-381
- Kopp, W.F., *see* Seng-Woon Chen, *MGWL Jun 95* 201-203
- Kormanyos, B.K., and G.M. Rebeiz. Correction to "Oscillator design for maximum added power" (*Jun 94* 205-207); *MGWL Mar 95* 93
- Koshiba, M., and S.-J. Xu. Papers from journals published in Australia, India, China, Korea, and Japan in 1994; *MGWL Dec 95* 460-501
- Krasavin, J., and H. Hinrikus. Performance and optimization of Gunn self-oscillating mixer; *MGWL Jun 95* 177-179
- Kroemer, H., *see* Reddy, M., *MGWL Jul 95* 219-221
- Krumpholtz, M., *see* Dib, N., *MGWL Oct 95* 354-355
- Krumpholtz, M., and L.P.B. Katehi. New prospects for time domain analysis; *MGWL Nov 95* 382-384
- Kukutsu, N., and R. Konno. Super absorption boundary condition for guided waves in the 3-D TLM simulation; *MGWL Sep 95* 299-301
- Kuo Chien-Nan, *see* Chien-Nan Kuo, *MGWL Jul 95* 216-218
- Kuzuhara, M., *see* Matsunaga, K., *MGWL Nov 95* 402-404
- Kwang-Hyun Baek, He-Young Sung, and Wee Sang Park. A 3-position transmission/reflection method for measuring the permittivity of low loss materials; *MGWL Jan 95* 3-5

L

- Lai, R., *see* Aust, M., *MGWL Jan 95* 12-14
- Lai, R., *see* Wang, H., *MGWL May 95* 150-152
- Lai, R., *see* Hui Wang, *MGWL Sep 95* 281-283
- Lancaster, M.J., *see* Hong, J.S., *MGWL Mar 95* 87-89
- Lancaster, M.J., *see* Hong, J.S., *MGWL Aug 95* 261-263
- Lancaster, M.J., *see* Hong, J.S., *MGWL Nov 95* 371-372
- Langley, R.J., *see* Parker, E.A., *MGWL Oct 95* 338-340
- Larsson, A., *see* Delgado, G., *MGWL Jun 95* 198-200
- Lautenvasser, B.D., *see* Feng, M., *MGWL May 95* 156-158
- LeBlanc, M., and G.Y. Delisle. Comments on "Plane wave excitation of an infinite dielectric rod"; *MGWL Jul 95* 233-234
- Lee, R., *see* Jevtic, J.O., *MGWL Feb 95* 45-47
- Lee Hai-Young, *see* Sang-Ki Yun, *MGWL Sep 95* 296-298
- Lester, J.A., *see* Chi, J.C.L., *MGWL Jan 95* 21-23
- Leung, K.W., *see* Luk, K.M., *MGWL Dec 95* 445-447
- Li, B., *see* Ma, J., *MGWL Nov 95* 396-398
- Liang, G.-C., *see* Zhang, D., *MGWL Nov 95* 405-407
- Lin, J., Y.K. Chen, D.A. Humphrey, R.A. Hamm, R.J. Malik, A. Tate, R.F. Kopf, and R.W. Ryan. Ka-band monolithic InGaAs/InP HBT VCO's in CPW structure; *MGWL Nov 95* 379-381
- Lin, J.H., *see* Chew, W.C., *MGWL Dec 95* 439-441
- Lin Gong-Ru, *see* Gong-Ru Lin, *MGWL Oct 95* 335-337
- Liu, J.M., *see* Chan, R.Y., *MGWL Aug 95* 246-248
- Liu, P.H., *see* Aust, M., *MGWL Jan 95* 12-14
- Liu, P.H., *see* Wang, H., *MGWL May 95* 150-152
- Liu, S.-M.J., *see* Seng-Woon Chen, *MGWL Jun 95* 201-203
- Liu, S.-M.J., *see* Smith, P.M., *MGWL Jul 95* 230-232

- Liu, W., *see* Hill, D., *MGWL Nov 95* 373-375
- Liu, Y.W., *see* Luk, K.M., *MGWL Dec 95* 445-447
- Liu Hwei-Yuan, *see* Hwei-Yuan Liu, *MGWL Feb 95* 42-44
- Lo, D.C.W., *see* Wang, H., *MGWL May 95* 150-152
- Lo, D.C.-W., *see* Hui Wang, *MGWL Sep 95* 281-283
- Lo, D.C.-W., *see* Wang, H., *MGWL Nov 95* 388-390
- LoVetri, J., *see* Siushansian, R., *MGWL Dec 95* 425-428
- Lu, Z.H., *see* Zhang, D., *MGWL Nov 95* 405-407
- Lubke, K., *see* Springer, A.L., *MGWL Apr 95* 114-116
- Lu Fan, *see* Zhengping Ding, *MGWL Aug 95* 264-266
- Luk, K.M., E.K.N. Yung, K.W. Leung, and Y.W. Liu. On the measured equation of invariance for an electrically large cylinder; *MGWL Dec 95* 445-447
- Lynch, J.J., and R.A. York. A mode locked array of coupled phase locked loops; *MGWL Jul 95* 213-215

M

- Ma, J., B. Li, and H. Yang. Analysis of double groove guide coupling structures using domain bases EW-BIEM; *MGWL Nov 95* 396-398
- Maas, S.A., *see* Basu, S., *MGWL May 95* 159-160
- Maas, S.A. Third-order intermodulation distortion in cascaded stages; *MGWL Jun 95* 189-191
- Maas, S.A., *see* Basu, S., *MGWL Jul 95* 224-226
- Maas, S.A., *see* Basu, S., *MGWL Sep 95* 293-295
- Mader, T.B., and Z.B. Popovic. The transmission-line high-efficiency class-E amplifier; *MGWL Sep 95* 290-292
- Ma Jian-Guo, *see* Jian-Guo Ma, *MGWL May 95* 164
- Malik, R.J., *see* Lin, J., *MGWL Nov 95* 379-381
- Mallick, A.K., *see* Das, B.N., *MGWL Jun 95* 186-188
- Mann, A.G., *see* Tobar, M.E., *MGWL Apr 95* 108-110
- Martin, A., A. Mortazawi, and B.C. De Loach, Jr. A power amplifier based on an extended resonance technique; *MGWL Oct 95* 329-331
- Martin, S.C., *see* Reddy, M., *MGWL Jul 95* 219-221
- Masuno, H., *see* Itoh, Y., *MGWL Dec 95* 454-456
- Mather, A., *see* Fetterman, H.R., *MGWL May 95* 156-158
- Matsunaga, K., Y. Okamoto, and M. Kuzuhara. A 12-GHz, 12-W HJFET amplifier with 48% peak power-added efficiency; *MGWL Nov 95* 402-404
- Matsuura, H., *see* Mernyei, F., *MGWL May 95* 139-141
- Ma Zhewang, *see* Zhewang Ma, *MGWL Apr 95* 117-118
- McPartlin, M.J., *see* Feng, M., *MGWL May 95* 156-158
- Mei, K.K. Comments on "How invariant is the measured equation of invariance?" by J.O. Jevtic, and R. Lee (*Feb 95* 45-47) [with authors' reply]; *MGWL Nov 95* 417
- Mernyei, F., I. Aoki, and H. Matsuura. New cross-T junction for CPW stub-filters on MMICs; *MGWL May 95* 139-141
- Mezzanotte, P., L. Roselli, and R. Sorrentino. A simple way to model curved metal boundaries in FDTD algorithm avoiding staircase approximation; *MGWL Aug 95* 267-269
- Mezzanotte, P., *see* Alimenti, F., *MGWL Oct 95* 351-353
- Middleton, J.R., *see* Feng, M., *MGWL May 95* 156-158
- Misra, D. On the measurement of the complex permittivity of materials by an open-ended coaxial probe; *MGWL May 95* 161-163
- Missous, M., *see* Rahal, A., *MGWL Nov 95* 368-370
- Mitsui, Y., *see* Itoh, Y., *MGWL Dec 95* 454-456
- Mitra, R., and U. Pekel. A new look at the perfectly matched layer (PML) concept for the reflectionless absorption of electromagnetic waves; *MGWL Mar 95* 84-86
- Mitra, R., *see* Pekel, U., *MGWL Aug 95* 258-260
- Mochizuki, M., *see* Itoh, Y., *MGWL Dec 95* 454-456
- Mongia, R.K., *see* Keller, M.G., *MGWL Nov 95* 376-378
- Mortazawi, A., *see* Martin, A., *MGWL Oct 95* 329-331
- Mrozowski, M., M. Niedzwiecki, and P. Suchomski. A fast recursive highly dispersive absorbing boundary condition using time domain diakoptics and Laguerre polynomials; *MGWL Jun 95* 183-185
- Muller, R.E., *see* Reddy, M., *MGWL Jul 95* 219-221

N

- Nakahara, K., *see* Itoh, Y., *MGWL Feb 95* 48-49
- Nakahara, K., *see* Itoh, Y., *MGWL Feb 95* 59-61
- Navsariwala, U., *see* Gedney, S.D., *MGWL Oct 95* 332-334
- Niedzwiecki, M., *see* Mrozowski, M., *MGWL Jun 95* 183-185
- Nikoskinen, K.I., *see* Pekonen, O.P.M., *MGWL Dec 95* 432-434

O

- Okamoto, Y., *see* Matsunaga, K., *MGWL Nov 95* 402-404

- Oki, A., *see* Wang, H., *MGWL Nov 95* 388-390
 Oki, A.K., *see* Kobayashi, K.W., *MGWL Feb 95* 56-58
 Oki, A.K., *see* Kobayashi, K.W., *MGWL Sep 95* 308-310
 Oki, A.K., *see* Kobayashi, K.W., *MGWL Sep 95* 311-312
 Oki, A.K., *see* Kobayashi, K.W., *MGWL Dec 95* 442-444
 Oki, A.K., *see* Kobayashi, K.W., *MGWL Dec 95* 457-459
 Oki, A.R., *see* Streit, D.C., *MGWL Apr 95* 124-126
 Oliver, J.D., Jr., *see* Feng, M., *MGWL May 95* 156-158
 Oliver, M.B., *see* Keller, M.G., *MGWL Nov 95* 376-378
 Orta, R., P. Savi, R. Tascone, and D. Trinchero. Rectangular waveguide dual-mode filters without discontinuities inside the resonators; *MGWL Sep 95* 302-304
 Osgood, R.M., Jr., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Ovey, J., *see* Rahal, A., *MGWL Nov 95* 368-370

P

- Palma, M.S., *see* Gothard, G.K., *MGWL Aug 95* 252-254
 Pan Ci-Ling, *see* Gong-Ru Lin, *MGWL Oct 95* 335-337
 Pan Dec-Son, *see* Runhua Sun, *MGWL Jan 95* 18-20
 Papatheodorou, S., *see* Herscovici, N.I., *MGWL Jan 95* 24-25
 Parker, E.A., B. Philips, and R.J. Langley. Analysis of coupling between a curved FSS and an enclosed planar dipole array; *MGWL Oct 95* 338-340
 Park Wee Sang, *see* Kwang-Hyun Back, *MGWL Jan 95* 3-5
 Peatman, W.C.B., *see* Koh, P.J., *MGWL Mar 95* 73-75
 Pekel, U., *see* Mittra, R., *MGWL Mar 95* 84-86
 Pekel, U., and R. Mittra. An application of the perfectly matched layer (PML) concept to the finite element method frequency domain analysis of scattering problems; *MGWL Aug 95* 258-260
 Pekonen, O.P.M., P. Alinikula, and K.I. Nikoskinen. Perturbation method for sinusoidally excited FDTD analysis; *MGWL Dec 95* 432-434
 Pennock, S.R., *see* Spillard, C., *MGWL Aug 95* 241-242
 Philips, B., *see* Parker, E.A., *MGWL Oct 95* 338-340
 Ping Zhao An, *see* An Ping Zhao, *MGWL Oct 95* 341-343
 Plant, D.V., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Popovic, Z.B., *see* Mader, T.B., *MGWL Sep 95* 290-292
 Pospieszalski, M.W., *see* Wang, H., *MGWL May 95* 150-152
 Pozar, D.M., *see* Herscovici, N.I., *MGWL Jan 95* 24-25
 Pregla, R. Higher order approximation for the difference operators in the method of lines; *MGWL Feb 95* 53-55
 Pregla, R., and L. Vietzorreck. Combination of the source method with absorbing boundary conditions in the method of lines; *MGWL Jul 95* 227-229

R

- Raffetto, M., *see* Caorsi, S., *MGWL Jul 95* 222-223
 Rahal, A., R.G. Bosisio, C. Rogers, J. Ovey, M. Sawan, and M. Missous. A W-band medium power multi-stack quantum barrier varactor frequency tripler; *MGWL Nov 95* 368-370
 Raisanen, A.V., *see* An Ping Zhao, *MGWL Oct 95* 341-343
 Rao, S.M., *see* Gothard, G.K., *MGWL Aug 95* 252-254
 Rappaport, C.M. Perfectly matched absorbing boundary conditions based on anisotropic lossy mapping of space; *MGWL Mar 95* 90-92
 Rebeiz, G.M., *see* Kormanyos, B.K., *MGWL Mar 95* 93
 Rebeiz, G.M., *see* Weller, T.M., *MGWL May 95* 153-155
 Reddy, M., R.Y. Yu, H. Kroemer, M.J.W. Rodwell, S.C. Martin, R.E. Muller, and R.P. Smith. Bias stabilization for resonant tunnel diode oscillators; *MGWL Jul 95* 219-221
 Riblet, G.P. Simplified 8-port S-matrix of the general reciprocal lossless matched 4-way divider with output port isolation; *MGWL Nov 95* 365-367
 Riley, D.J., and C.D. Turner. Interfacing unstructured tetrahedron grids to structured-grid FDTD; *MGWL Sep 95* 284-286
 Riza, N.A., and S.E. Sadow. Optically controlled photoconductive N-bit switched microwave signal attenuator; *MGWL Dec 95* 448-450
 Rodwell, M.J.W., *see* Bhattacharya, U., *MGWL Feb 95* 50-52
 Rodwell, M.J.W., *see* Reddy, M., *MGWL Jul 95* 219-221
 Rogers, C., *see* Rahal, A., *MGWL Nov 95* 368-370
 Rogers, T.J., *see* Seng-Woon Chen, *MGWL Jun 95* 201-203
 Rorsman, N., *see* Karlsson, C., *MGWL Nov 95* 394-395
 Roscoe, D.J., *see* Keller, M.G., *MGWL Nov 95* 376-378
 Roselli, L., *see* Mezzanotte, P., *MGWL Aug 95* 267-269
 Roselli, L., *see* Alimenti, F., *MGWL Oct 95* 351-353
 Rosen, A., *see* Yost, T.A., *MGWL Sep 95* 287-289
 Rossek, S.J., and C.E. Free. Optically controlled microwave switching and phase shifting using GaAs FET's; *MGWL Mar 95* 81-83
 Rother, T., *see* Dreher, A., *MGWL Nov 95* 408-410

- Runhua Sun, Dee-Son Pan, and T. Itoh. Simulation of a subharmonic excitation of series integrated resonant tunneling diodes; *MGWL Jan 95* 18-20
 Ryan, R.W., *see* Lin, J., *MGWL Nov 95* 379-381

S

- Sadow, S.E., *see* Riza, N.A., *MGWL Dec 95* 448-450
 Sakura, T., *see* Itoh, Y., *MGWL Feb 95* 59-61
 Samant, A.R., and K.W. Whites. Notable features of hybrid modes in a chiral-filled rectangular waveguide; *MGWL May 95* 144-146
 Sang-Ki Yun, and Hai-Young Lee. Parasitic impedance analysis of double bonding wires for high-frequency integrated circuit packaging; *MGWL Sep 95* 296-298
 Sang Park Wee, *see* Kwang-Hyun Back, *MGWL Jan 95* 3-5
 Sanpietro, F., *see* Ferrero, A., *MGWL Apr 95* 119-121
 Sarkar, T.K., *see* Gothard, G.K., *MGWL Aug 95* 252-254
 Savi, P., *see* Orta, R., *MGWL Sep 95* 302-304
 Sawan, M., *see* Rahal, A., *MGWL Nov 95* 368-370
 Sayed, M., *see* Wang, H., *MGWL Dec 95* 429-431
 Scherrer, D.R., *see* Feng, M., *MGWL May 95* 156-158
 Schumacher, H., *see* Erben, U., *MGWL Dec 95* 435-436
 Schuppen, A., *see* Erben, U., *MGWL Dec 95* 435-436
 Scott, D.C., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Searls, J.H., *see* Tobar, M.E., *MGWL Apr 95* 108-110
 Seng-Woon Chen, P.M. Smith, S.-M.J. Liu, W.F. Kopp, and T.J. Rogers. A 60-GHz high efficiency monolithic power amplifier using 0.1- μ m PHEMT's; *MGWL Jun 95* 201-203
 Sentelle, C.G., *see* Voelker, R.H., *MGWL May 95* 137-138
 Shafai, L., *see* Shaker, J., *MGWL Oct 95* 324-325
 Shaker, J., and L. Shafai. Removing the angular sensitivity of FSS structures using novel double-layer structures; *MGWL Oct 95* 324-325
 Shepherd, P.R., *see* Spillard, C., *MGWL Aug 95* 241-242
 Shih, C.F., *see* Zhang, D., *MGWL Nov 95* 405-407
 Simonis, G.J., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Singh, S., *see* Yost, T.A., *MGWL Sep 95* 287-289
 Siou Teck Chew, *see* Chien-Nan Kuo, *MGWL Jul 95* 216-218
 Siushansian, R., and J. LoVetri. A comparison of numerical techniques for modeling electromagnetic dispersive media; *MGWL Dec 95* 425-428
 Smith, P.M., *see* Seng-Woon Chen, *MGWL Jun 95* 201-203
 Smith, P.M., S.-M.J. Liu, M.-Y. Kao, P. Ho, S.C. Wang, K.H.G. Duh, S.T. Fu, and P.C. Chao. W-band high efficiency InP-based power HEMT with 600 GHz f_{max} ; *MGWL Jul 95* 230-232
 Smith, R.P., *see* Reddy, M., *MGWL Jul 95* 219-221
 Sorrentino, R., *see* Mezzanotte, P., *MGWL Aug 95* 267-269
 Sorrentino, R., *see* Alimenti, F., *MGWL Oct 95* 351-353
 Sovero, E.A., *see* Higgins, J.A., *MGWL Oct 95* 347-348
 Spillard, C., S.R. Pennock, and P.R. Shepherd. Absorbing boundary conditions for the modeling of scatterers in parallel-plate transmission media; *MGWL Aug 95* 241-242
 Springer, A.L., C.G. Diskus, K. Lubke, and H.W. Thim. A 60-GHz MMIC-compatible TED-oscillator; *MGWL Apr 95* 114-116
 Steier, W.H., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Streit, D.C., *see* Aust, M., *MGWL Jan 95* 12-14
 Streit, D.C., *see* Kobayashi, K.W., *MGWL Feb 95* 56-58
 Streit, D.C., *see* Wang, H., *MGWL May 95* 150-152
 Streit, D.C., K.W. Kobayashi, A.R. Oki, and D.K. Umemoto. A monolithic HBT-regulated HEMT LNA by selective MBE; *MGWL Apr 95* 124-126
 Streit, D.C., *see* Kobayashi, K.W., *MGWL Sep 95* 311-312
 Streit, D.C., *see* Wang, H., *MGWL Nov 95* 388-390
 Streit, D.C., *see* Kobayashi, K.W., *MGWL Dec 95* 442-444
 Streit, D.C., *see* Kobayashi, K.W., *MGWL Dec 95* 457-459
 Stuchly, M.A., *see* De Moerloose, J., *MGWL Oct 95* 344-346
 Suchomski, P., *see* Mrozowski, M., *MGWL Jun 95* 183-185
 Sung He-Young, *see* Kwang-Hyun Back, *MGWL Jan 95* 3-5
 Sun Runhua, *see* Runhua Sun, *MGWL Jan 95* 18-20

T

- Tait, G.B., *see* Jones, J.R., *MGWL Feb 95* 62
 Takagi, T., *see* Itoh, Y., *MGWL Feb 95* 48-49
 Takagi, T., *see* Itoh, Y., *MGWL Feb 95* 59-61
 Takagi, T., *see* Itoh, Y., *MGWL Dec 95* 454-456
 Tascone, R., *see* Orta, R., *MGWL Sep 95* 302-304
 Tate, A., *see* Lin, J., *MGWL Nov 95* 379-381
 Teck Chew Siou, *see* Chien-Nan Kuo, *MGWL Jul 95* 216-218
 Tefiku, F., and E. Yamashita. Efficient method for the capacitance calculation of circularly symmetric via in multilayered media; *MGWL Sep 95* 305-307
 Tentzeris, E., *see* Dib, N., *MGWL Oct 95* 354-355

- Theron, D., *see* Allam, R., *MGWL Mar 95* 76-78
 Theron, D., *see* Allam, R., *MGWL Apr 95* 122-123
 Theron, D., *see* Gaquiere, C., *MGWL Aug 95* 243-245
 Thim, H.W., *see* Springer, A.L., *MGWL Apr 95* 114-116
 Thomas, V.A., *see* Chien-Nan Kuo, *MGWL Jul 95* 216-218
 Tirkas, P.A., *see* Andrew, W.V., *MGWL Jun 95* 192-194
 Tobar, M.E., E.N. Ivanov, R.A. Woode, J.H. Searls, and A.G. Mann. Low noise 9-GHz sapphire resonator-oscillator with thermoelectric temperature stabilization at 300 Kelvin; *MGWL Apr 95* 108-110
 Tokumitsu, T., M. Aikawa, and K. Kohiyama. Three-dimensional MMIC technology: A possible solution to masterslice MMIC's on GaAs and Si; *MGWL Nov 95* 411-413
 Tran, L., *see* Kobayashi, K.W., *MGWL Feb 95* 56-58
 Tran, L.T., *see* Kobayashi, K.W., *MGWL Sep 95* 311-312
 Tran, L.T., *see* Wang, H., *MGWL Nov 95* 388-390
 Trenkic, V., T.M. Benson, and C. Christopoulos. Dispersion analysis of a TLM mesh using a new scattering matrix formulation; *MGWL Mar 95* 79-80
 Trincherio, D., *see* Orta, R., *MGWL Sep 95* 302-304
 Tsai, H.S., and R.A. York. Multi-slot 50- Ω antennas for quasi-optical circuits; *MGWL Jun 95* 180-182
 Tuck, D., and S. Coad. Neurocomputed model of open-circuited coaxial probes; *MGWL Apr 95* 105-107
 Turner, C.D., *see* Riley, D.J., *MGWL Sep 95* 284-286

U

- Umemoto, D.K., *see* Streit, D.C., *MGWL Apr 95* 124-126
 Umemoto, D.K., *see* Kobayashi, K.W., *MGWL Dec 95* 442-444
 Umemoto, D.K., *see* Kobayashi, K.W., *MGWL Dec 95* 457-459

V

- Vander Vorst, A., *see* Huynen, I., *MGWL Jun 95* 195-197
 Vanhoenacker, D., and I. Huynen. Prediction of surface wave radiation coupling on microwave planar circuits; *MGWL Aug 95* 255-257
 Verstraeten, G., *see* Huynen, I., *MGWL Jun 95* 195-197
 Vietzorreck, L., *see* Pregla, R., *MGWL Jul 95* 227-229
 Voelker, R.H., and C.G. Sentelle. FD-TLM modeling of Josephson junction circuits; *MGWL May 95* 137-138

W

- Wahl, M., *see* Erben, U., *MGWL Dec 95* 435-436
 Wang, H., *see* Aust, M., *MGWL Jan 95* 12-14
 Wang, H., R. Lai, D.C.W. Lo, D.C. Streit, P.H. Liu, R.M. Dia, M.W. Pospieszalski, and J. Berenz. A 140-GHz monolithic low noise amplifier; *MGWL May 95* 150-152
 Wang, H., K.-W. Chang, D.C.-W. Lo, L.T. Tran, J.C. Cowles, T.R. Block, G.S. Dow, A. Oki, D.C. Streit, and B.R. Allen. A 62-GHz monolithic InP-based HBT VCO; *MGWL Nov 95* 388-390
 Wang, H., and M. Sayed. W-band MMIC characterization in an isothermal environment; *MGWL Dec 95* 429-431
 Wang, S.C., *see* Smith, P.M., *MGWL Jul 95* 230-232
 Wang Bing-Zhong, *see* Bing-Zhong Wang, *MGWL Jan 95* 15-17
 Wang Bing-Zhong, *see* Bing-Zhong Wang, *MGWL May 95* 142-143
 Wang Hwei, *see* Hwei Wang, *MGWL Sep 95* 281-283
 Wang Way-Seen, *see* Hwei-Yuan Liu, *MGWL Feb 95* 42-44
 Way-Seen Wang, *see* Hwei-Yuan Liu, *MGWL Feb 95* 42-44
 Wee Sang Park, *see* Kwang-Hyun Back, *MGWL Jan 95* 3-5
 Weller, T.M., L.P. Katchi, and G.M. Rebeiz. A 250-GHz microshield bandpass filter; *MGWL May 95* 153-155
 Whites, K.W., *see* Samant, A.R., *MGWL May 95* 144-146
 Woode, R.A., *see* Tobar, M.E., *MGWL Apr 95* 108-110
 Wu, M., *see* Fetterman, H.R., *MGWL Nov 95* 414-416
 Wu, M.-D., *see* Deng, S.-M., *MGWL Nov 95* 391-393
 Wu, Z., *see* Fang, J., *MGWL Dec 95* 451-453

X

- Xu Danwei, *see* Jiayuan Fang, *MGWL Jan 95* 6-8
 Xu, S.-J., *see* Koshiba, M., *MGWL Dec 95* 460-501

Y

- Yamashita, E., *see* Zhewang Ma, *MGWL Apr 95* 117-118
 Yamashita, E., *see* Tefiku, F., *MGWL Sep 95* 305-307

- Yamashita, E., *see* Ishikawa, T., *MGWL Dec 95* 437-438
 Yang, H., *see* Ma, J., *MGWL Nov 95* 396-398
 Yang Cheng-Chih, *see* Hwei Wang, *MGWL Sep 95* 281-283
 Yang Chien-Rong, *see* Gong-Ru Lin, *MGWL Oct 95* 335-337
 York, R.A., *see* Tsai, H.S., *MGWL Jun 95* 180-182
 York, R.A., *see* Lynch, J.J., *MGWL Jul 95* 213-215
 Yoshida, N., *see* Itoh, Y., *MGWL Feb 95* 48-49
 Yoshida, N., *see* Itoh, Y., *MGWL Feb 95* 59-61
 Yost, T.A., P.R. Herczfeld, A. Rosen, and S. Singh. Hybrid transversal filter utilizing MMIC and optical fiber delay lines; *MGWL Sep 95* 287-289
 Yu, R.Y., *see* Reddy, M., *MGWL Jul 95* 219-221
 Yung, E.K.N., *see* Luk, K.M., *MGWL Dec 95* 445-447
 Yun Sang-Ki, *see* Sang-Ki Yun, *MGWL Sep 95* 296-298

Z

- Zaki, K.A., *see* Abdelmonem, A., *MGWL Feb 95* 40-41
 Zhang, D., G.-C. Liang, C.F. Shih, Z.H. Lu, and M.E. Johansson. A 19-pole cellular bandpass filter using 75-mm-diameter high-temperature superconducting thin films; *MGWL Nov 95* 405-407
 Zhao An Ping, *see* An Ping Zhao, *MGWL Oct 95* 341-343
 Zhengping Ding, Lu Fan, and Kai Chang. A new type of active antenna for coupled Gunn oscillator driven spatial power combining arrays; *MGWL Aug 95* 264-266
 Zhewang Ma, T. Ishikawa, and E. Yamashita. An efficient analysis approach for inset dielectric guide (IDG) structures and its variations; *MGWL Apr 95* 117-118
 Zhou, B.H., *see* Chen, B., *MGWL Nov 95* 399-401
 Zirath, H., *see* Karlsson, C., *MGWL Nov 95* 394-395
 Zyburia, M.F., *see* Jones, J.R., *MGWL Feb 95* 62

SUBJECT INDEX

A

- Absorbing media;** *cf.* Electromagnetic propagation in absorbing media; Electromagnetic scattering by absorbing media
Abstracts
 Papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M., + , MGWL Dec 95* 460-501
Active antennas
 dielec. resonator antenna, active aperture-coupled rect. *Keller, M.G., + , MGWL Nov 95* 376-378
Active arrays
 44-GHz monolithic plane-wave amps. *Higgins, J.A., + , MGWL Oct 95* 347-348
 MMIC multi-slot 50- Ω antennas for quasi-opt. ccts. *Tsai, H.S., + , MGWL Jun 95* 180-182
 spatial power combining arrays, coupled Gunn oscillator, act. antenna. *Zhengping Ding, + , MGWL Aug 95* 264-266
Active circuits
 microwave act. cct. small sig. anal. using FDTD algm., MESFET amps. *Chien-Nan Kuo, + , MGWL Jul 95* 216-218
Active circuits; *cf.* Active filters; Negative resistance circuits; Oscillators
Active filters
 hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A., + , MGWL Sep 95* 287-289
Admittance
 complex permitt. meas. by open-ended coaxial probe. *Misra, D., MGWL May 95* 161-163
Admittance; *cf.* Impedance
Algebra; *cf.* Vectors
Aluminum materials/devices
 AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K.W., + , MGWL Sep 95* 308-310
 InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W., + , MGWL Sep 95* 311-312
 InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Hwei Wang, + , MGWL Sep 95* 281-283
 X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E., + , MGWL Apr 95* 108-110
Amplifier distortion
 third-order IMD in cascaded stages. *Maas, S.A., MGWL Jun 95* 189-191
Amplifier noise
 AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K.W., + , MGWL Sep 95* 308-310
 LNA integrating common-source HEMT/HBT Darlington amp. *Kobayashi, K.W., + , MGWL Dec 95* 442-444

- wideband HEMT cascode low-noise amp., HBT bias regulation. *Kobayashi, K W* +, *MGWL Dec 95* 457-459
- Amplifiers; cf.** MMIC amplifiers; Switching amplifiers
- Analog circuits; cf.** Microwave circuits; Oscillators
- Analog integrated circuits; cf.** Bipolar analog integrated circuits; Microwave integrated circuits; Millimeter wave integrated circuits; MMIC amplifiers; MMIC oscillators; MMICs; Submillimeter wave integrated circuits. UHF integrated circuits
- Anisotropic media; cf.** Chiral media, Electromagnetic scattering by anisotropic media
- Antenna accessories; cf.** Radomes
- Antenna array mutual coupling**
planar dipole array. enclosing curved FSS, coupling. *Parker, E.A.* +, *MGWL Oct 95* 338-340
- Antenna arrays; cf.** Active arrays; Dipole arrays; Microstrip arrays; Slot arrays
- Antenna coupling; cf.** Apertures
- Antenna mutual coupling; cf.** Antenna array mutual coupling
- Antennas; cf.** Active antennas; Aperture antennas, Lens antennas; Microstrip antennas, Microwave antennas; Millimeter wave antennas; Receiving antennas; Reflector antennas
- Antenna theory**
planar dipole array, enclosing curved FSS, coupling. *Parker, E.A.* +, *MGWL Oct 95* 338-340
reflector antenna FSS struct. using novel double layers, ang. sensitivity removal *Shaker, J.* +, *MGWL Oct 95* 324-325
transverse slot in inhomogen. loaded rect. waveguide wall for array appls. *Joubert, J.* *MGWL Feb 95* 37-39
- Aperture antennas**
qtr.-wave Fresnel zone planar lens and antenna. *Hristov, H.D.* +, *MGWL Aug 95* 249-251
- Apertures**
dielec. resonator antenna, active aperture-coupled rect. *Keller, M.G.* +, *MGWL Nov 95* 376-378
microstrip antennas, CPW excited slot coupled, impedance charâcts. *Deng, S.-M.* +, *MGWL Nov 95* 391-393
- Approximation methods**
difference operators in method of lines, higher order approx *Pregla, R.* *MGWL Feb 95* 53-55
- Approximation methods; cf.** Linear approximation; Perturbation methods
- Arrays**
pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J.* +, *MGWL Jul 95* 213-215
- Arrays; cf.** Active arrays; Antenna arrays; Planar arrays
- Attenuators; cf.** Microwave attenuators

B

- Backpropagation**
open-circuited coaxial probes, neurocomputed model. *Tuck, D.* +, *MGWL Apr 95* 105-107
- Bandpass filters**
19-pole cellular HTSC thin film bandpass filter. *Zhang, D.* +, *MGWL Nov 95* 405-407
dual-mode microstrip bandpass filter based on meander loop resonator. *Hong, J.S.* +, *MGWL Nov 95* 371-372
microshield bandpass filter, 250 GHz design *Weller, T.M.* +, *MGWL May 95* 153-155
microstrip pseudo-interdigital bandpass filters. *Hong, J.S.* +, *MGWL Aug 95* 261-263
- Beam focusing; cf.** Focusing
- Beams; cf.** Gaussian beams
- Bifurcation**
chiral-filled rect. waveguide, hybrid modes *Samant, A.R.* +, *MGWL May 95* 144-146
microwave ccts, piecewise stabil. anal. *Basu, S.* +, *MGWL May 95* 159-160
microwave doubler, Hopf bifurcation study. *Basu, S.* +, *MGWL Sep 95* 293-295
- Biomedical applications of electromagnetic radiation**
papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.* +, *MGWL Dec 95* 460-501
- Bipolar analog integrated circuits**
AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K W* +, *MGWL Sep 95* 308-310

- Bipolar analog integrated circuits; cf.** Microwave bipolar integrated circuits; Millimeter wave bipolar integrated circuits
- Bipolar integrated circuits; cf.** Bipolar analog integrated circuits
- Bipolar transistor amplifiers; cf.** Microwave bipolar transistor amplifiers
- Bipolar transistor oscillators; cf.** Microwave bipolar transistor oscillators; Millimeter wave bipolar transistor oscillators
- Bipolar transistors; cf.** Heterojunction bipolar transistors
- Boundary integral equations**
double groove guide coupling structs. anal., eigenweighted boundary integral eqn. method. *Ma, J.* +, *MGWL Nov 95* 396-398
- Boundary value problems**
absorbing boundary conditions, comparison for FDTD method. *Andrew, W.V.* +, *MGWL Jun 95* 192-194
EM scatt., perfectly matched absorbing boundary conditions. *Rappaport, C.M.* *MGWL Mar 95* 90-92
EM waves reflectionless absorpt., perfectly matched layer concept. *Mitra, R.* +, *MGWL Mar 95* 84-86
- Broadcasting; cf.** Satellite broadcasting

C

- Calibration**
leaky NWA calib. algm. *Ferrero, A.* +, *MGWL Apr 95* 119-121
- Capacitance**
circ. symmetric via in multilayered media, capacit. calc. *Tefiku, F.* +, *MGWL Sep 95* 305-307
- Capacitors**
HEMT with integrated on-drain capacitor, hybrid mixer. *Allam, R.* +, *MGWL Mar 95* 76-78
- Capacitors; cf.** Varactors
- Carrier processes; cf.** Charge carrier processes
- Cascade circuits**
third-order IMD in cascaded stages. *Maas, S.A.* *MGWL Jun 95* 189-191
- Cavity resonator filters**
dual-mode rect. waveguide filters without resonator discontinuities. *Orta, R.* +, *MGWL Sep 95* 302-304
modal anal. of waveguide filters. *Beyer, R.* +, *MGWL Jan 95* 9-11
- Cavity resonators**
curved metal boundaries, modelling in FDTD algm. *Mezzanotte, P.* +, *MGWL Aug 95* 267-269
vector wave eqn., finite element time-domain anal. *Gedney, S.D.* +, *MGWL Oct 95* 332-334
X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.* +, *MGWL Apr 95* 108-110
- Chaos**
microwave doubler, Hopf bifurcation study. *Basu, S.* +, *MGWL Sep 95* 293-295
SHF doubler, quasi-periodic route, chaos. *Basu, S.* +, *MGWL Jul 95* 224-226
- Charge carrier processes**
InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.* +, *MGWL Jun 95* 198-200
SHF doubler, quasi-periodic route, chaos. *Basu, S.* +, *MGWL Jul 95* 224-226
- Chiral media**
rect. waveguide, chiral-filled, hybrid modes. *Samant, A.R.* +, *MGWL May 95* 144-146
- Circuit analysis**
TLM mesh dispersion anal., scatt. matrix formulation. *Trenkic, V.* +, *MGWL Mar 95* 79-80
- Circuit analysis; cf.** Circuit transient analysis
- Circuit boards; cf.** Printed circuits
- Circuit design; cf.** Circuit synthesis
- Circuit noise; cf.** Amplifier noise; Filter noise; Integrated circuit noise; Oscillator noise
- Circuits; cf.** Active circuits; Coupling circuits; Delay circuits; Equivalent circuits; Impedance matching; Lossless circuits; Microwave circuits; Multiport circuits; Nonlinear circuits; Printed circuits
- Circuit simulation**
correction to "Heterostructure barrier varactor simulation using an integrated hydrodynamic device/harmonic-balance circuit analysis technique" (Dec 94 411-413). *Jones, J.R.* +, *MGWL Feb 95* 62
microwave act. cct. small sig. anal. using FDTD algm., MESFET amps. *Chien-Nan Kuo* +, *MGWL Jul 95* 216-218
series integrated RTDs, subharmonic excitation simul. *Runhua Sun* +, *MGWL Jan 95* 18-20
- Circuit stability**
microwave ccts., piecewise stabil. anal. *Basu, S.* +, *MGWL May 95* 159-160
microwave doubler, Hopf bifurcation study. *Basu, S.* +, *MGWL Sep 95* 293-295

- SHF doubler, quasi-periodic route, chaos. *Basu, S.*, +, *MGWL Jul 95* 224-226
- Circuit stability**; cf. Oscillator stability
- Circuit synthesis**
correction to "Oscillator design for maximum added power" (Jun 94 205-207). *Kormanyos, B.K.*, +, *MGWL Mar 95* 93
- Circuit transient analysis**
W-band MMIC charactn., isothermal environ., pulsed network analyzer. *Wang, H.*, +, *MGWL Dec 95* 429-431
- Circular waveguides**
waveguide filters, modal anal., hybrid MM/FE method. *Beyer, R.*, +, *MGWL Jan 95* 9-11
- Coaxial components**
complex permitt. meas. by open-ended coaxial probe. *Misra, D.*, *MGWL May 95* 161-163
- Computer applications**; cf. Neural network applications
- Conducting bodies**
meas. eqn. of invariance, electrically large cylinder. *Luk, K.M.*, +, *MGWL Dec 95* 445-447
- Conducting films**; cf. Superconducting films
- Conductors**
circ. symmetric via in multilayered media, capacit. calc. *Tefiku, F.*, +, *MGWL Sep 95* 305-307
- Control systems**; cf. Optical control
- Convergence of numerical methods**
difference operators in method of lines, higher order approx. *Pregla, R.*, *MGWL Feb 95* 53-55
- Converters**; cf. Frequency conversion
- Convolution**
waveguide dispersive absorbing boundary condition, time domain diakoptics, Laguerre polynomials. *Mrozowski, M.*, +, *MGWL Jun 95* 183-185
- Coplanar waveguides**
cross-T jn. for CPW stub-filters on MMICs. *Mernyei, F.*, +, *MGWL May 95* 139-141
DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW. *Bhattacharya, U.*, +, *MGWL Feb 95* 50-52
GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz. *Kobayashi, K.W.*, +, *MGWL Feb 95* 56-58
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312
Ka-band monolithic InGaAs/InP HBT VCOs, CPW struct. *Lin, J.*, +, *MGWL Nov 95* 379-381
microstrip antennas, CPW excited slot coupled, impedance characts. *Deng, S.-M.*, +, *MGWL Nov 95* 391-393
MMIC multi-slot 50- Ω antennas for quasi-opt. ccts. *Tsai, H.S.*, +, *MGWL Jun 95* 180-182
- Coupled mode analysis**
pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215
- Couplers**; cf. Microstrip couplers; Stripline couplers; Waveguide couplers
- Coupling**; cf. Apertures; Electromagnetic coupling
- Coupling circuits**
pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215
spatial power combining arrays, coupled Gunn oscillator, act. antenna. *Zhengping Ding*, +, *MGWL Aug 95* 264-266
- CPW**; cf. Coplanar waveguides
- Cryogenic electronics**
InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Huei Wang*, +, *MGWL Sep 95* 281-283
- Crystal oscillators**; cf. Piezoelectric resonator oscillators
- Cylinders**
circ. symmetric via in multilayered media, capacit. calc. *Tefiku, F.*, +, *MGWL Sep 95* 305-307
infinite dielec. rod, plane EM wave excitation, comments. *LeBlanc, M.*, +, *MGWL Jul 95* 233-234
meas. eqn. of invariance, electrically large cylinder. *Luk, K.M.*, +, *MGWL Dec 95* 445-447
- Cylindrical waveguides**; cf. Circular waveguides
- D**
- DBS**; cf. Satellite broadcasting
- Delay circuits**
optically controlled phased array radar receiver, SLM switched real time delays. *Fetterman, H.R.*, +, *MGWL Nov 95* 414-416
- DFT**; cf. Discrete Fourier transforms
- Dielectric antennas**; cf. Lens antennas
- Dielectric bodies**
infinite dielec. rod, plane EM wave excitation, comments. *LeBlanc, M.*, +, *MGWL Jul 95* 233-234
- Dielectric materials/devices**; cf. Capacitors; Chiral media; Dielectric resonators; Dielectric waveguides
- Dielectric measurements**; cf. Permittivity measurement
- Dielectric resonators**
dielec. resonator antenna, active aperture-coupled rect. *Keller, M.G.*, +, *MGWL Nov 95* 376-378
- Dielectric waveguides**
inset dielec. guide structs. and vars., anal. *Zhewang Ma*, +, *MGWL Apr 95* 117-118
- Dielectric waveguides**; cf. Optical waveguides
- Differential equations**; cf. Partial differential equations
- Digital control**
optically controlled photoconductive N-bit switched microwave signal attenuator. *Riza, N.A.*, +, *MGWL Dec 95* 448-450
- Diodes**; cf. Microwave diodes; Millimeter wave diodes; Submillimeter wave diodes
- Dipole arrays**
planar dipole array, enclosing curved FSS, coupling. *Parker, E.A.*, +, *MGWL Oct 95* 338-340
- Direct Broadcast Satellites**; cf. Satellite broadcasting
- Discrete Fourier transforms**
FDTD time-to-freq. domain conversions, DFT/FFT comparison. *Furse, C.M.*, +, *MGWL Oct 95* 326-328
- Dispersive media**; cf. Electromagnetic propagation in dispersive media; Electromagnetic scattering by dispersive media
- Distributed feedback oscillators**
X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.*, +, *MGWL Apr 95* 108-110
- Distributed parameter circuits**; cf. Microstrip circuits; Microwave circuits
- Distributed parameter filters**; cf. Microstrip filters; Microwave filters; Millimeter wave filters
- Doppler effect**
Gunn Doppler self-oscillating mixer, perform. and optim. *Krasavin, J.*, +, *MGWL Jun 95* 177-179
- E**
- Eigenvalues/eigenfunctions**
EM eigenproblems, edge elements in finite element soln. *Caorsi, S.*, +, *MGWL Jul 95* 222-223
TLM mesh dispersion anal., scatt. matrix formulation. *Trenkic, V.*, +, *MGWL Mar 95* 79-80
- Electric fields**
EM waves reflectionless absorpt., perfectly matched layer concept. *Mitra, R.*, +, *MGWL Mar 95* 84-86
- Electric variables**; cf. Admittance; Capacitance; Impedance; Inductance; Permittivity; Resistance
- Electromagnetic analysis**
absorbing boundary conditions, comparison for FDTD method. *Andrew, W.V.*, +, *MGWL Jun 95* 192-194
struct.-grid FDTD, interfacing unstructured tetrahedron grids. *Riley, D.J.*, +, *MGWL Sep 95* 284-286
thin-slot field penetration, FDTD anal. *Bing-Zhong Wang*, *MGWL May 95* 142-143
- Electromagnetic coupling**
EM surface wave radiation coupling on microwave planar ccts. *Vanhoenacker, D.*, +, *MGWL Aug 95* 255-257
small-hole coupling, formalism for FDTD simul. *Bing-Zhong Wang*, *MGWL Jan 95* 15-17
- Electromagnetic coupling**; cf. Mutual coupling; Optical coupling
- Electromagnetic fields**
finite element soln. of EM eigenproblems, edge elements. *Caorsi, S.*, +, *MGWL Jul 95* 222-223
infinite dielec. rod, plane EM wave excitation, comments. *LeBlanc, M.*, +, *MGWL Jul 95* 233-234
small-hole coupling, formalism for FDTD simul. *Bing-Zhong Wang*, *MGWL Jan 95* 15-17
thin-slot field penetration, FDTD anal. *Bing-Zhong Wang*, *MGWL May 95* 142-143
- Electromagnetic fields**; cf. Electric fields; Magnetic fields
- Electromagnetic measurements**; cf. Microwave measurements; Millimeter wave measurements
- Electromagnetic propagation**
absorbing boundary conditions, comparison for FDTD method. *Andrew, W.V.*, +, *MGWL Jun 95* 192-194

Electromagnetic propagation; cf. Electromagnetic propagation in absorbing media; Electromagnetic propagation in dispersive media; Electromagnetic propagation in nonhomogeneous media; Electromagnetic surface waves; Microwave propagation; Optical propagation

Electromagnetic propagation in absorbing media
Berenger ABC for evanescent waves. *De Moerloose, J.*, +, *MGWL Oct 95* 344-346
Berenger's perfectly matched layer boundary condition, generalization. *Fang, J.*, +, *MGWL Dec 95* 451-453
reflectionless absorpt., perfectly matched layer concept. *Mitra, R.*, +, *MGWL Mar 95* 84-86

Electromagnetic propagation in dispersive media
chiral-filled rect. waveguide, hybrid modes. *Samant, A R.*, +, *MGWL May 95* 144-146
dispersive media modeling, num. techs. comparison. *Siushansian, R.*, +, *MGWL Dec 95* 425-428
inset dielec. guide structs. and vars., anal. *Zhewang Ma*, +, *MGWL Apr 95* 117-118
parallel-plate transm. media, absorbing boundary conditions, modeling of scatterers. *Spillard, C.*, +, *MGWL Aug 95* 241-242

Electromagnetic propagation in nonhomogeneous media
Berenger ABC for evanescent waves *De Moerloose, J.*, +, *MGWL Oct 95* 344-346

Electromagnetic propagation in nonlinear media; cf. Optical propagation in nonlinear media

Electromagnetic reflection
Berenger ABC for evanescent waves *De Moerloose, J.*, +, *MGWL Oct 95* 344-346

Electromagnetic refraction; cf. Optical refraction

Electromagnetic scattering
absorbing boundary conditions, comparison for FDTD method. *Andrew, W.V.*, +, *MGWL Jun 95* 192-194
comments, with reply, on "How invariant is the measured equation of invariance?" by J.O. Jevtic, and R. Lee (Feb 95 45-47). *Mei, K.K.*, *MGWL Nov 95* 417
infinite dielec. rod, plane EM wave excitation, comments. *LeBlanc, M.*, +, *MGWL Jul 95* 233-234
infinite dielec. rod, plane wave excitation. *Jian-Guo Ma*, *MGWL May 95* 164
meas. eqn. of invariance, electrically large cylinder. *Luk, K.M.*, +, *MGWL Dec 95* 445-447
meas. eqn. of invariance study. *Jevtic, J O.*, +, *MGWL Feb 95* 45-47

Electromagnetic scattering; cf. Electromagnetic reflection; Electromagnetic scattering by absorbing media; Electromagnetic scattering by anisotropic media; Electromagnetic scattering by dispersive media; Electromagnetic scattering by nonhomogeneous media; Electromagnetic scattering inverse problems

Electromagnetic scattering by absorbing media
perfectly matched layer, scatt. problems, FEM freq. domain anal. *Pekel, U.*, +, *MGWL Aug 95* 258-260

Electromagnetic scattering by anisotropic media
anisotropic lossy mapping of space. *Rappaport, C M.*, *MGWL Mar 95* 90-92
ferrite bodies of rev., scatt., hybrid FEM. *Epp, L.W.*, +, *MGWL Apr 95* 111-113

Electromagnetic scattering by dispersive media
dispersive media modeling, num techs. comparison *Siushansian, R.*, +, *MGWL Dec 95* 425-428

Electromagnetic scattering by nonhomogeneous media
freq.-hopped microwave imaging, large inhomog. bodies. *Chew, W.C.*, +, *MGWL Dec 95* 439-441

Electromagnetic scattering inverse problems
freq.-hopped microwave imaging, large inhomog. bodies. *Chew, W.C.*, +, *MGWL Dec 95* 439-441

Electromagnetic surface waves
microwave planar ccts., EM surface wave radiation coupling *Vanhoenacker, D.*, +, *MGWL Aug 95* 255-257

Electromagnetic transient analysis
Josephson jn. ccts., FD-TLM modelling. *Voelker, R H.*, +, *MGWL May 95* 137-138

Electromagnetic transient analysis; cf. Transmission line matrix methods

Electromagnetic transient propagation; cf. Optical transient propagation

Electronics; cf. Ultrafast electronics

Electrostatic analysis
open region electrostatic problems incorporating meas. eqn. of invariance, FEM anal. *Gothard, G K.*, +, *MGWL Aug 95* 252-254

Epitaxial growth
InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub)-mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200
LNA, monolithic HBT-regulated HEMT config. by MBE. *Streit, D C.*, +, *MGWL Apr 95* 124-126

Equations; cf. Integral equations

Equivalent circuits

cross-T jn. for CPW stub-filters on MMICs. *Mernyei, F.*, +, *MGWL May 95* 139-141
InP-based power HEMT, W-band, 600 GHz $f_{\max}$. *Smith, P.M.*, +, *MGWL Jul 95* 230-232
microwave act. cct. small sig. anal. using FDTD algm., MESFET amps. *Chien-Nan Kuo*, +, *MGWL Jul 95* 216-218
series integrated RTDs, subharmonic excitation simul. *Runhua Sun*, +, *MGWL Jan 95* 18-20

Error analysis

Berenger ABC for evanescent waves. *De Moerloose, J.*, +, *MGWL Oct 95* 344-346
impedance computation, FDTD method, num. errors. *Jiayuan Fang*, +, *MGWL Jan 95* 6-8
stripline, impedance calc. by FDTD, num. errors. *Dib, N.*, +, *MGWL Oct 95* 354-355

Estimation; cf. Recursive estimation

F

Faraday effect

ferrite bodies of rev., scatt., hybrid FEM. *Epp, L.W.*, +, *MGWL Apr 95* 111-113

Fast Fourier transforms; cf. Discrete Fourier transforms

FDTD methods

absorbing boundary conditions, comparison for FDTD method. *Andrew, W V.*, +, *MGWL Jun 95* 192-194
Berenger's perfectly matched layer boundary condition, generalization. *Fang, J.*, +, *MGWL Dec 95* 451-453
curved metal boundaries, modelling in FDTD algm. *Mezzanotte, P.*, +, *MGWL Aug 95* 267-269
EM waves reflectionless absorpt., perfectly matched layer concept. *Mitra, R.*, +, *MGWL Mar 95* 84-86
impedance computation, FDTD method, num. errors. *Jiayuan Fang*, +, *MGWL Jan 95* 6-8
microwave act. cct. small sig. anal. using FDTD algm., MESFET amps. *Chien-Nan Kuo*, +, *MGWL Jul 95* 216-218
modified Berenger PML absorbing boundary condition meshes. *Chen, B.*, +, *MGWL Nov 95* 399-401
parallel-plate transm. media, absorbing boundary conditions, modeling of scatterers. *Spillard, C.*, +, *MGWL Aug 95* 241-242
planar microstrip discontinuities, FDTD algm. *An Ping Zhao*, +, *MGWL Oct 95* 341-343
sinusoidally excited FDTD anal., perturb. method. *Pekonen, O.P.M.*, +, *MGWL Dec 95* 432-434
small-hole coupling, formalism for FDTD simul. *Bing-Zhong Wang*, *MGWL Jan 95* 15-17
stripline, impedance calc. by FDTD, num. errors. *Dib, N.*, +, *MGWL Oct 95* 354-355
struct.-grid FDTD, interfacing unstructured tetrahedron grids. *Riley, D.J.*, +, *MGWL Sep 95* 284-286
thin-slot field penetration, FDTD anal. *Bing-Zhong Wang*, *MGWL May 95* 142-143
time-to-freq. domain conversions, DFT/FFT comparison *Furse, C M.*, +, *MGWL Oct 95* 326-328
waveguide components, FDTD anal., time domain modal expansion. *Alimenti, F.*, +, *MGWL Oct 95* 351-353
waveguide dispersive absorbing boundary condition, time domain diakoptics, Laguerre polynomials *Mrozowski, M.*, +, *MGWL Jun 95* 183-185

Feedback amplifiers; cf. Operational amplifiers

Feedback circuits; cf. Distributed feedback oscillators

Feedforward neural networks

open-circuited coaxial probes, neurocomputed model. *Tuck, D.*, +, *MGWL Apr 95* 105-107

Ferrite films/devices; cf. YIG films/devices

FET amplifiers; cf. JFET amplifiers; MESFET amplifiers; Microwave FET amplifiers; Millimeter wave FET amplifiers; MODFET amplifiers, UHF FET amplifiers

FET analog integrated circuits; cf. Microwave FET integrated circuits; Millimeter wave FET integrated circuits; MODFET integrated circuits

FET circuits; cf. FET integrated circuits; MODFET circuits

FET integrated circuits

monolithic F-band resistive InAlAs/InGaAs/InP HFET mixer *Karlsson, C.*, +, *MGWL Nov 95* 394-395

FET integrated circuits; cf. MESFET integrated circuits; MODFET integrated circuits

FETs; cf. FET integrated circuits; MODFETs

FET switches
GaAs FET microwave switching/phase shifting. *Rossek, S.J.*, +, *MGWL Mar 95* 81-83

FFT (fast Fourier transform); cf. Discrete Fourier transforms

Fiber optics; cf. Optical fibers

Filter noise
hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A.*, +, *MGWL Sep 95* 287-289

Filters; cf. Active filters; Bandpass filters; Microwave filters; Millimeter wave filters; Passive filters; Submillimeter wave filters; Superconducting filters; Transversal filters; Waveguide filters

Finite difference methods
Berenger ABC for evanescent waves. *De Moerloose, J.*, +, *MGWL Oct 95* 344-346
chiral-filled rect. waveguide, hybrid modes. *Samant, A.R.*, +, *MGWL May 95* 144-146
comments, with reply, on "How invariant is the measured equation of invariance?" by J.O. Jevtic, and R. Lee (Feb 95 45-47). *Mei, K.K.*, *MGWL Nov 95* 417
cutoff freqs. of guiding structs., circ. and planar boundaries. *Das, B.N.*, +, *MGWL Jun 95* 186-188
difference operators in method of lines, higher order approx. *Pregla, R.*, *MGWL Feb 95* 53-55
Josephson jn. ccts., FD-TLM modelling. *Voelker, R.H.*, +, *MGWL May 95* 137-138
meas. eqn. of invariance study. *Jevtic, J.O.*, +, *MGWL Feb 95* 45-47
method of lines, combination, source method for anal. *Pregla, R.*, +, *MGWL Jul 95* 227-229
nonlin. tapered opt. waveguide, beam propag. anal. *Hwei-Yuan Liu*, +, *MGWL Feb 95* 42-44

Finite difference time domain methods; cf. FDTD methods

Finite element methods
comments, with reply, on "How invariant is the measured equation of invariance?" by J.O. Jevtic, and R. Lee (Feb 95 45-47). *Mei, K.K.*, *MGWL Nov 95* 417
EM eigenproblems, edge elements in finite element soln. *Caorsi, S.*, +, *MGWL Jul 95* 222-223
ferrite bodies of rev., scatt., hybrid FEM. *Epp, L.W.*, +, *MGWL Apr 95* 111-113
meas. eqn. of invariance study. *Jevtic, J.O.*, +, *MGWL Feb 95* 45-47
open region electrostatic problems incorporating meas. eqn. of invariance, FEM anal. *Gothard, G.K.*, +, *MGWL Aug 95* 252-254
perfectly matched layer, scatt. problems, FEM freq. domain anal. *Pekel, U.*, +, *MGWL Aug 95* 258-260
vector wave eqn., finite element time-domain anal. *Gedney, S.D.*, +, *MGWL Oct 95* 332-334
waveguide filters, modal anal., hybrid MM/FE method. *Beyer, R.*, +, *MGWL Jan 95* 9-11

Focusing
qtr.-wave Fresnel zone planar lens and antenna. *Hristov, H.D.*, +, *MGWL Aug 95* 249-251

Fourier transforms; cf. Discrete Fourier transforms

Frequency conversion
microwave doubler, Hopf bifurcation study. *Basu, S.*, +, *MGWL Sep 95* 293-295
mm-wave tripler eval. of Schottky diode varactor. *Koh, P.J.*, +, *MGWL Mar 95* 73-75
SHF doubler, quasi-periodic route, chaos. *Basu, S.*, +, *MGWL Jul 95* 224-226

Frequency conversion; cf. Microwave frequency conversion; Millimeter wave frequency conversion; Schottky diode frequency converters

Frequency division; cf. Frequency conversion

Frequency domain analysis
microwave doubler, Hopf bifurcation study. *Basu, S.*, +, *MGWL Sep 95* 293-295
perfectly matched layer, scatt. problems, FEM freq. domain anal. *Pekel, U.*, +, *MGWL Aug 95* 258-260
pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215

Frequency domain analysis; cf. Discrete Fourier transforms

Frequency hopped radar
freq.-hopped microwave imaging, large inhomog. bodies. *Chew, W.C.*, +, *MGWL Dec 95* 439-441

Frequency multiplication; cf. Frequency conversion

Frequency selective surfaces
planar dipole array, enclosing curved FSS, coupling. *Parker, E.A.*, +, *MGWL Oct 95* 338-340
reflector antenna FSS struct. using novel double layers, ang. sensitivity removal. *Shaker, J.*, +, *MGWL Oct 95* 324-325

Frequency stability

X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.*, +, *MGWL Apr 95* 108-110

G**Galerkin's method; cf.** Moment methods**Gallium materials/devices**

AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K.W.*, +, *MGWL Sep 95* 308-310
DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW. *Bhattacharya, U.*, +, *MGWL Feb 95* 50-52
FET, opt. controlled microwave switching. *Rossek, S.J.*, +, *MGWL Mar 95* 81-83
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. *Aust, M.*, +, *MGWL Jan 95* 12-14
GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz. *Kobayashi, K.W.*, +, *MGWL Feb 95* 56-58
GaAs MIMIC TED-oscillator, 60 GHz, perform. *Springer, A.L.*, +, *MGWL Apr 95* 114-116
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312
InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Huei Wang*, +, *MGWL Sep 95* 281-283
InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency. *Chi, J.C.L.*, +, *MGWL Jan 95* 21-23
V-band high gain monolithic PHEMT LNA design. *Itoh, Y.*, +, *MGWL Feb 95* 48-49
W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y.*, +, *MGWL Feb 95* 59-61

Garnet films/devices; cf. YIG films/devices**Gaussian beams**

InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200

Gradient methods; cf. Backpropagation**Gunn device oscillators**

Doppler self-oscillating mixer, perform. and optimization. *Krasavin, J.*, +, *MGWL Jun 95* 177-179
GaAs MIMIC TED-oscillator, 60 GHz, perform. *Springer, A.L.*, +, *MGWL Apr 95* 114-116
spatial power combining arrays, coupled Gunn oscillator, act. antenna. *Zhengping Ding*, +, *MGWL Aug 95* 264-266

Gunn devices

high-perform. InP Gunn devices, fund.-mode D-band operation. *Eisele, H.*, +, *MGWL Nov 95* 385-387

H**Harmonic analysis**

correction to "Heterostructure barrier varactor simulation using an integrated hydrodynamic device/harmonic-balance circuit analysis technique" (Dec 94 411-413). *Jones, J.R.*, +, *MGWL Feb 95* 62

Heterojunction bipolar transistors

62-GHz monolithic InP-based HBT VCO. *Wang, H.*, +, *MGWL Nov 95* 388-390
C-band SiGe HBT class-A power amps., power handling capabilities. *Erben, U.*, +, *MGWL Dec 95* 435-436
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312
Ka-band monolithic InGaAs/InP HBT VCOs, CPW struct. *Lin, J.*, +, *MGWL Nov 95* 379-381
LNA integrating common-source HEMT/HBT Darlington amp. *Kobayashi, K.W.*, +, *MGWL Dec 95* 442-444
LNA, monolithic HBT-regulated HEMT config. by MBE. *Streit, D.C.*, +, *MGWL Apr 95* 124-126
novel HBT with reduced thermal impedance. *Hill, D.*, +, *MGWL Nov 95* 373-375
wideband HEMT cascode low-noise amp., HBT bias regulation. *Kobayashi, K.W.*, +, *MGWL Dec 95* 457-459

High-speed circuits/devices; cf. Ultrafast electronics**High-temperature superconductors**

19-pole cellular HTSC thin film bandpass filter. *Zhang, D.*, +, *MGWL Nov 95* 405-407

Hybrid integrated circuits

HEMT with integrated on-drain capacitor, hybrid mixer. *Allam, R.*, +, *MGWL Mar 95* 76-78

I

- Imaging/mapping; cf.** Microwave imaging/mapping, Radar imaging/mapping
- Impedance**
double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun, +, MGWL Sep 95 296-298*
FDTD computations, num. errors. *Jiayuan Fang, +, MGWL Jan 95 6-8*
microstrip antennas, CPW excited slot coupled, impedance characts. *Deng, S.-M., +, MGWL Nov 95 391-393*
stripline, impedance calc. by FDTD, num. errors. *Dib, N., +, MGWL Oct 95 354-355*
- Impedance matching**
microwave act. cct. small sig. anal using FDTD algm., MESFET amps. *Chien-Nan Kuo, +, MGWL Jul 95 216-218*
- Impulse generation; cf.** Pulse generation
- Indium materials/devices**
62-GHz monolithic InP-based HBT VCO *Wang, H., +, MGWL Nov 95 388-390*
high-perform. InP Gunn devices, fund.-mode D-band operation. *Eisele, H., +, MGWL Nov 95 385-387*
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W., +, MGWL Sep 95 311-312*
InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Huei Wang, +, MGWL Sep 95 281-283*
InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G., +, MGWL Jun 95 198-200*
InGaAs PHEMT MMIC power amp, Q-band, 1-W, high-efficiency. *Chi, J.C.L., +, MGWL Jan 95 21-23*
InP-based power HEMT, W-band, 600 GHz f_{max} . *Smith, P.M., +, MGWL Jul 95 230-232*
Ka-band monolithic InGaAs/InP HBT VCOs, CPW struct. *Lin, J., +, MGWL Nov 95 379-381*
monolithic F-band resistive InAlAs/InGaAs/InP HFET mixer. *Karlsson, C., +, MGWL Nov 95 394-395*
- Inductance**
double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun, +, MGWL Sep 95 296-298*
Ka-Band HEMTs, source inductance effect on power perform. *Gaquiere, C., +, MGWL Aug 95 243-245*
- Inductors**
MMIC act. floating pos. and neg. inductors, design. *El Khoury, S., MGWL Oct 95 321-323*
- Infrared lasers; cf.** Lasers
- Inhomogeneous media; cf.** Nonhomogeneous media
- Integral equations**
ferrite bodies of rev., scatt, hybrid FEM. *Epp, L.W., +, MGWL Apr 95 111-113*
transverse slot in inhomogen. loaded rect. waveguide wall for array appls. *Joubert, J., MGWL Feb 95 37-39*
- Integral equations; cf.** Moment methods
- Integrated circuit design**
MMIC act. floating pos. and neg. inductors, design. *El Khoury, S., MGWL Oct 95 321-323*
- Integrated circuit doping; cf.** Integrated circuit ion implantation
- Integrated circuit fabrication; cf.** Integrated circuit packaging
- Integrated circuit interconnections**
buried microstrip lines, high-density microwave IC construction, expt. results. *Ishikawa, T., +, MGWL Dec 95 437-438*
double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun, +, MGWL Sep 95 296-298*
- Integrated circuit ion implantation**
Ka-band MMIC LNA, direct ion-implanted GaAs MESFETs. *Feng, M., +, MGWL May 95 156-158*
- Integrated circuit measurements**
W-band MMIC charactn., isothermal environ., pulsed network analyzer. *Wang, H., +, MGWL Dec 95 429-431*
- Integrated circuit metallization; cf.** Integrated circuit interconnections
- Integrated circuit noise**
AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K.W., +, MGWL Sep 95 308-310*
HEMT MIMIC LNA, 140-GHz, design and perform. *Wang, H., +, MGWL May 95 150-152*
hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A., +, MGWL Sep 95 287-289*
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W., +, MGWL Sep 95 311-312*
Ka-band MMIC LNA, direct ion-implanted GaAs MESFETs. *Feng, M., +, MGWL May 95 156-158*
V-band high gain monolithic PHEMT LNA design. *Itoh, Y., +, MGWL Feb 95 48-49*

- W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y., +, MGWL Feb 95 59-61*
- Integrated circuit packaging**
double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun, +, MGWL Sep 95 296-298*
V-band high gain monolithic PHEMT LNA design. *Itoh, Y., +, MGWL Feb 95 48-49*
- Integrated circuits; cf.** Boundary integral equations; FET integrated circuits, Hybrid integrated circuits; Integrated optoelectronics; Microwave integrated circuits; Millimeter wave integrated circuits; Power integrated circuits; Submillimeter wave integrated circuits, UHF integrated circuits
- Integrated circuit thermal factors**
W-band MMIC charactn., isothermal environ., pulsed network analyzer. *Wang, H., +, MGWL Dec 95 429-431*
- Integrated optoelectronics**
subharmonic PLL. *Gong-Ru Lin, +, MGWL Oct 95 335-337*
- Interconnected circuits; cf.** Cascade circuits
- Interconnections; cf.** Integrated circuit interconnections
- Intermodulation distortion**
third-order IMD in cascaded stages. *Maas, S.A., MGWL Jun 95 189-191*
- Inverse problems; cf.** Electromagnetic scattering inverse problems
- Ion implantation; cf.** Integrated circuit ion implantation

J

- JFET amplifiers**
12-GHz 12-W HJFET amp. 48% peak power-added efficiency. *Matsunaga, K., +, MGWL Nov 95 402-404*
- Josephson devices**
FD-TLM modeling of Josephson jn ccts. *Voelker, R.H., +, MGWL May 95 137-138*
- Josephson junctions**
FD-TLM modeling of Josephson jn. ccts. *Voelker, R.H., +, MGWL May 95 137-138*
- Junctions; cf.** Waveguide junctions

L

- Laguerre processes**
waveguide dispersive absorbing boundary condition, time domain diakoptics, Laguerre polynomials. *Mrozowski, M., +, MGWL Jun 95 183-185*
- Laplace equations**
open region electrostatic problems incorporating meas. eqn. of invariance, FEM anal. *Gothard, G.K., +, MGWL Aug 95 252-254*
- Large-scale systems; cf.** Sparse matrices
- Lasers**
papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M., +, MGWL Dec 95 460-501*
- LC circuits; cf.** Lossless circuits
- Learning systems; cf.** Backpropagation
- Least mean square methods; cf.** Backpropagation
- Lens antennas**
qtr.-wave Fresnel zone planar lens and antenna. *Hristov, H.D., +, MGWL Aug 95 249-251*
- Lenses; cf.** Focusing
- Light sources; cf.** Lasers
- Linear approximation**
correction to "Oscillator design for maximum added power" (Jun 94 205-207). *Kormanyos, B.K., +, MGWL Mar 95 93*
- Linear approximation; cf.** Piecewise linear approximation
- Loaded waveguides**
method of lines as variant of mode matching, partially filled waveguide appl. *Dreher, A., +, MGWL Nov 95 408-410*
- Lossless circuits**
matched reciprocal lossless four-way divider, output port isolation, 8-port S-matrix. *Riblet, G.P., MGWL Nov 95 365-367*

M

- Magnetic fields**
EM waves reflectionless absorpt., perfectly matched layer concept. *Mitra, R., +, MGWL Mar 95 84-86*
- Magnetic materials/devices; cf.** Microwave magnetic materials/devices
- Magnetization processes**
YIG magnetostatic forward vol. wave resonators, nonreciprocal effects. *Huynen, I., +, MGWL Jun 95 195-197*

Magneto-optic materials/devices; cf. Faraday effect**Magnetostatic volume waves**

YIG magnetostatic forward vol. wave resonators, nonreciprocal effects.

Huynen, I., +, MGWL Jun 95 195-197

Matching; cf. Impedance matching**Mathematics; cf. Numerical analysis****Matrices; cf. Mode matching methods; Moment methods; Sparse matrices****Maxwell's equations**

EM scatt., perfectly matched absorbing boundary conditions. *Rappaport, C.M., MGWL Mar 95 90-92*

EM waves reflectionless absorpt., perfectly matched layer concept. *Mitra, R., +, MGWL Mar 95 84-86*

moment method with scaling fns., direct appl. to Maxwell's eqns. *Krumpholtz, M., +, MGWL Nov 95 382-384*

Measurement; cf. Calibration; Integrated circuit measurements; Scattering parameters measurement; Semiconductor device measurements; Time domain measurements**MESFET amplifiers**

class-E amp., high-efficiency microstrip transm. line config. *Mader, T.B., +, MGWL Sep 95 290-292*

microwave act. cct. small sig. anal. using FDTD algm., MESFET amps. *Chien-Nan Kuo, +, MGWL Jul 95 216-218*

MESFET amplifiers; cf. MESFET power amplifiers**MESFET integrated circuits**

Ka-band MMIC LNA, direct ion-implanted GaAs MESFETs. *Feng, M., +, MGWL May 95 156-158*

MESFET integrated circuits; cf. MESFET amplifiers**MESFET power amplifiers**

5-10 GHz 15-W GaAs MESFET amp., flat gain/power responses. *Itoh, Y., +, MGWL Dec 95 454-456*

extended reson. tech. *Martin, A., +, MGWL Oct 95 329-331*

Metal-semiconductor devices; cf. Schottky diodes**MIC; cf. Microwave integrated circuits****Microstrip**

3D TLM simul., super absorpt. boundary condition for guided waves. *Kukutsu, N., +, MGWL Sep 95 299-301*

circ. symmetric via in multilayered media, capacit. calc. *Tefiku, F., +, MGWL Sep 95 305-307*

edge-coupled microstrip loop resonators, capacitive loading. *Hong, J.S., +, MGWL Mar 95 87-89*

EM surface wave radiation coupling on microwave planar ccts. *Vanhoenacker, D., +, MGWL Aug 95 255-257*

parallel-plate transm. media, absorbing boundary conditions, modeling of scatterers. *Spillard, C., +, MGWL Aug 95 241-242*

Microstrip antennas

CPW excited slot coupled, impedance characts. *Deng, S.-M., +, MGWL Nov 95 391-393*

dielec. resonator antenna, active aperture-coupled rect. *Keller, M.G., +, MGWL Nov 95 376-378*

method of lines, combination, source method for anal. *Pregla, R., +, MGWL Jul 95 227-229*

Microstrip arrays

44-GHz monolithic plane-wave amps. *Higgins, J.A., +, MGWL Oct 95 347-348*

Microstrip circuits

buried microstrip lines, high-density microwave IC construction, expt. results. *Ishikawa, T., +, MGWL Dec 95 437-438*

class-E amp., high-efficiency microstrip transm. line config. *Mader, T.B., +, MGWL Sep 95 290-292*

Microstrip components; cf. Microstrip antennas; Microstrip couplers; Microstrip filters; Microstrip resonators**Microstrip couplers**

aperture coupling, adjacent layers, stripline geom. *Herscovici, N.I., +, MGWL Jan 95 24-25*

Microstrip discontinuities

method of lines, combination, source method for anal. *Pregla, R., +, MGWL Jul 95 227-229*

parallel-plate transm. media, absorbing boundary conditions, modeling of scatterers. *Spillard, C., +, MGWL Aug 95 241-242*

planar microstrip discontinuities, FDTD algm. *An Ping Zhao, +, MGWL Oct 95 341-343*

Microstrip filters

bandpass filter, pseudo-interdigital struct. *Hong, J.S., +, MGWL Aug 95 261-263*

dual-mode microstrip bandpass filter based on meander loop resonator. *Hong, J.S., +, MGWL Nov 95 371-372*

Microstrip resonators

dual-mode microstrip bandpass filter based on meander loop resonator. *Hong, J.S., +, MGWL Nov 95 371-372*

edge-coupled microstrip loop resonators, capacitive loading. *Hong, J.S., +, MGWL Mar 95 87-89*

Microwave amplifiers; cf. Microwave bipolar transistor amplifiers; Microwave FET amplifiers**Microwave antennas**

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M., +, MGWL Dec 95 460-501*

Microwave attenuators

optically controlled photoconductive N-bit switched microwave signal attenuator. *Riza, N.A., +, MGWL Dec 95 448-450*

Microwave bipolar integrated circuits

AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K.W., +, MGWL Sep 95 308-310*

InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W., +, MGWL Sep 95 311-312*

Microwave bipolar transistor amplifiers

AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K.W., +, MGWL Sep 95 308-310*

LNA integrating common-source HEMT/HBT Darlington amp. *Kobayashi, K.W., +, MGWL Dec 95 442-444*

Microwave bipolar transistor oscillators

Ka-band monolithic InGaAs/InP HBT VCOs, CPW struct. *Lin, J., +, MGWL Nov 95 379-381*

Microwave circuits

EM surface wave radiation coupling on microwave planar ccts. *Vanhoenacker, D., +, MGWL Aug 95 255-257*

piecewise stabil. anal. of nonlin. microwave ccts. *Basu, S., +, MGWL May 95 159-160*

pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J., +, MGWL Jul 95 213-215*

Microwave circuits; cf. Microwave filters; Microwave integrated circuits; Microwave mixers; Microwave oscillators**Microwave devices**

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M., +, MGWL Dec 95 460-501*

Microwave diodes

freq. doubler, Hopf bifurcation study. *Basu, S., +, MGWL Sep 95 293-295*

Microwave emission; cf. Microwave radiometry**Microwave FET amplifiers**

LNA integrating common-source HEMT/HBT Darlington amp. *Kobayashi, K.W., +, MGWL Dec 95 442-444*

MESFET, small sig. anal., FDTD algm. *Chien-Nan Kuo, +, MGWL Jul 95 216-218*

Microwave FET amplifiers; cf. Microwave power FET amplifiers**Microwave FET integrated circuits**

Ka-band MMIC LNA, direct ion-implanted GaAs MESFETs. *Feng, M., +, MGWL May 95 156-158*

Microwave filters

cross-T jn. for CPW stub-filters on MMICs. *Mernyei, F., +, MGWL May 95 139-141*

dual-mode microstrip bandpass filter based on meander loop resonator. *Hong, J.S., +, MGWL Nov 95 371-372*

hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A., +, MGWL Sep 95 287-289*

microstrip pseudo-interdigital bandpass filters. *Hong, J.S., +, MGWL Aug 95 261-263*

Microwave frequency conversion

Hopf bifurcation in microwave doubler. *Basu, S., +, MGWL Sep 95 293-295*

SHF doubler, quasi-periodic route, chaos. *Basu, S., +, MGWL Jul 95 224-226*

Microwave frequency conversion; cf. Microwave mixers**Microwave generation**

pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J., +, MGWL Jul 95 213-215*

Microwave generation; cf. Microwave oscillators**Microwave imaging/mapping**

freq.-hopped microwave imaging, large inhomog. bodies. *Chew, W.C., +, MGWL Dec 95 439-441*

Microwave integrated circuits

buried microstrip lines, high-density microwave IC construction, expt. results. *Ishikawa, T., +, MGWL Dec 95 437-438*

double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun, +, MGWL Sep 95 296-298*

HEMT with integrated on-drain capacitor, hybrid mixer. *Allam, R., +, MGWL Mar 95 76-78*

Microwave integrated circuits; cf. Microwave bipolar integrated circuits; Microwave FET integrated circuits**Microwave magnetic materials/devices**

YIG magnetostatic forward vol. wave resonators, nonreciprocal effects. *Huynen, I., +, MGWL Jun 95 195-197*

Microwave measurements

3-port device, S-matrix reconstruction, two port meas. *Davidovitz, M., MGWL Oct 95 349-350*

- complex permitt. meas. by open-ended coaxial probe. *Misra, D.*, *MGWL May 95* 161-163
- leaky NWA calib. algm. *Ferrero A.* + , *MGWL Apr 95* 119-121
- open-circuited coaxial probes, neurocomputed model. *Tuck, D.* + , *MGWL Apr 95* 105-107
- permitt. meas., 3-posn. transm./refl. method. *Kwang-Hyun Baek*, + , *MGWL Jan 95* 3-5
- Microwave measurements; cf. Microwave radiometry**
- Microwave mixers**
- Gunn Doppler self-oscillating mixer, perform. and optim. *Krasavin, J.* + , *MGWL Jun 95* 177-179
- integrated on-drain capacitor. *Allam, R.* + , *MGWL Mar 95* 76-78
- optoelectronic subharmonic PLL. *Gong-Ru Lin.* + , *MGWL Oct 95* 335-337
- Microwave modulation/demodulation; cf. Microwave mixers**
- Microwave oscillators**
- X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.* + , *MGWL Apr 95* 108-110
- Microwave oscillators; cf. Microwave bipolar transistor oscillators**
- Microwave power amplifiers; cf. Microwave power FET amplifiers**
- Microwave power dividers/combiners**
- 3-port device, S-matrix reconstruction, two port meas. *Davidovitz, M.*, *MGWL Oct 95* 349-350
- power amp., extended reson. tech. *Martin, A.* + , *MGWL Oct 95* 329-331
- Microwave power FET amplifiers**
- 12-GHz 12-W HJFET amp. 48% peak power-added efficiency. *Matsunaga, K.* + , *MGWL Nov 95* 402-404
- 5-10 GHz 15-W GaAs MESFET amp., flat gain/power responses. *Itoh, Y.* + , *MGWL Dec 95* 454-456
- extended reson. tech. *Martin, A.* + , *MGWL Oct 95* 329-331
- Microwave propagation**
- papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiha, M.* + , *MGWL Dec 95* 460-501
- Microwave radiometry**
- W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y.* + , *MGWL Feb 95* 59-61
- Microwave resonators**
- dual-mode microstrip bandpass filter based on meander loop resonator. *Hong, J.S.* + , *MGWL Nov 95* 371-372
- InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.* + , *MGWL Sep 95* 311-312
- X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.* + , *MGWL Apr 95* 108-110
- YIG magnetostatic forward vol. wave resonators, nonreciprocal effects. *Huynen, I.* + , *MGWL Jun 95* 195-197
- Microwave scattering**
- papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiha, M.* + , *MGWL Dec 95* 460-501
- Millimeter wave amplifiers; cf. Millimeter wave FET amplifiers**
- Millimeter wave antennas**
- 44-GHz monolithic plane-wave amps. *Higgins, J.A.* + , *MGWL Oct 95* 347-348
- MMIC multi-slot 50- Ω antennas for quasi-opt. ccts. *Tsai, H.S.* + , *MGWL Jun 95* 180-182
- Millimeter wave bipolar integrated circuits**
- 44-GHz monolithic plane-wave amps. *Higgins, J.A.* + , *MGWL Oct 95* 347-348
- Millimeter wave bipolar transistor amplifiers; cf. Millimeter wave power bipolar transistor amplifiers**
- Millimeter wave bipolar transistor oscillators**
- 62-GHz monolithic InP-based HBT VCO. *Wang, H.* + , *MGWL Nov 95* 388-390
- Ka-band monolithic InGaAs/InP HBT VCOs, CPW struct. *Lin, J.* + , *MGWL Nov 95* 379-381
- Millimeter wave circuits; cf. Millimeter wave filters; Millimeter wave integrated circuits; Millimeter wave mixers; Millimeter wave oscillators; Millimeter wave receivers**
- Millimeter wave devices**
- high-perform. InP Gunn devices, fund.-mode D-band operation. *Eisele, H.* + , *MGWL Nov 95* 385-387
- Millimeter wave diodes**
- Schottky diode varactor, MM wave tripler appl. *Koh, P.J.* + , *MGWL Mar 95* 73-75
- series integrated RTDs, subharmonic excitation simul. *Runhua Sun*, + , *MGWL Jan 95* 18-20
- Millimeter wave FET amplifiers**
- HEMT MIMIC LNA, 140-GHz, design and perform. *Wang, H.* + , *MGWL May 95* 150-152
- InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Huei Wang*, + , *MGWL Sep 95* 281-283
- Ka-band MMIC LNA, direct ion-implanted GaAs MESFETs. *Feng, M.* + , *MGWL May 95* 156-158
- V-band high gain monolithic PHEMT LNA design. *Itoh, Y.* + , *MGWL Feb 95* 48-49
- W-band MMIC charactn., isothermal environ., pulsed network analyzer. *Wang, H.* + , *MGWL Dec 95* 429-431
- Millimeter wave FET amplifiers; cf. Millimeter wave power FET amplifiers**
- Millimeter wave FET integrated circuits**
- GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. *Aust, M.* + , *MGWL Jan 95* 12-14
- GaAs MIMIC TED-oscillator, 60 GHz, perform. *Springer, A.L.* + , *MGWL Apr 95* 114-116
- HEMT MIMIC LNA, 140-GHz, design and perform. *Wang, H.* + , *MGWL May 95* 150-152
- InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Huei Wang*, + , *MGWL Sep 95* 281-283
- InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency. *Chi, J.C.L.* + , *MGWL Jan 95* 21-23
- InP-based power HEMT, W-band, 600 GHz f_{max} . *Smith, P.M.* + , *MGWL Jul 95* 230-232
- Ka-band MMIC LNA, direct ion-implanted GaAs MESFETs. *Feng, M.* + , *MGWL May 95* 156-158
- pseudomorphic HEMT MIMIC power amp., 60 GHz design. *Seng-Woon Chen*, + , *MGWL Jun 95* 201-203
- V-band high gain monolithic PHEMT LNA design. *Itoh, Y.* + , *MGWL Feb 95* 48-49
- W-band MMIC charactn., isothermal environ., pulsed network analyzer. *Wang, H.* + , *MGWL Dec 95* 429-431
- W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y.* + , *MGWL Feb 95* 59-61
- Millimeter wave FETs; cf. Millimeter wave power FETs**
- Millimeter wave filters**
- microshield bandpass filter, 250 GHz design. *Weller, T.M.* + , *MGWL May 95* 153-155
- Millimeter wave frequency conversion**
- W-band medium power multistack quantum barrier varactor freq. tripler. *Rahal, A.* + , *MGWL Nov 95* 368-370
- Millimeter wave frequency conversion; cf. Millimeter wave mixers**
- Millimeter wave generation; cf. Millimeter wave oscillators**
- Millimeter wave integrated circuits**
- double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun*, + , *MGWL Sep 95* 296-298
- Millimeter wave integrated circuits; cf. Millimeter wave bipolar integrated circuits; Millimeter wave FET integrated circuits**
- Millimeter wave measurements**
- Ka-Band HEMTs, source inductance effect on power perform. *Gaquiere, C.* + , *MGWL Aug 95* 243-245
- Millimeter wave measurements; cf. Millimeter wave radiometry**
- Millimeter wave mixers**
- monolithic F-band resistive InAlAs/InGaAs/InP HFET mixer. *Karlsson, C.* + , *MGWL Nov 95* 394-395
- subharmonic gate mixer based on multichannel HEMT. *Allam, R.* + , *MGWL Apr 95* 122-123
- Millimeter wave modulation/demodulation**
- InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub)-mm waves. *Delgado, G.* + , *MGWL Jun 95* 198-200
- Millimeter wave oscillators**
- GaAs MIMIC TED-oscillator, 60 GHz, perform. *Springer, A.L.* + , *MGWL Apr 95* 114-116
- series integrated RTDs, subharmonic excitation simul. *Runhua Sun*, + , *MGWL Jan 95* 18-20
- Millimeter wave oscillators; cf. Millimeter wave bipolar transistor oscillators**
- Millimeter wave power amplifiers; cf. Millimeter wave power bipolar transistor amplifiers; Millimeter wave power FET amplifiers**
- Millimeter wave power bipolar transistor amplifiers**
- 44-GHz monolithic plane-wave amps. *Higgins, J.A.* + , *MGWL Oct 95* 347-348
- Millimeter wave power dividers/combiners**
- MMIC multi-slot 50- Ω antennas for quasi-opt. ccts. *Tsai, H.S.* + , *MGWL Jun 95* 180-182
- Millimeter wave power FET amplifiers**
- GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. *Aust, M.* + , *MGWL Jan 95* 12-14
- InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency. *Chi, J.C.L.* + , *MGWL Jan 95* 21-23
- pseudomorphic HEMT MIMIC power amp., 60 GHz design. *Seng-Woon Chen*, + , *MGWL Jun 95* 201-203
- Millimeter wave power FETs**
- InP-based power HEMT, W-band, 600 GHz f_{max} . *Smith, P.M.* + , *MGWL Jul 95* 230-232
- Ka-Band HEMTs, source inductance effect on power perform. *Gaquiere, C.* + , *MGWL Aug 95* 243-245

Millimeter wave radiometry

W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y.*, +, *MGWL Feb 95* 59-61

Millimeter wave receivers

InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Huei Wang*, +, *MGWL Sep 95* 281-283

InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200

Mixers; cf. Microwave mixers; Millimeter wave mixers; MMIC mixers; Optical mixers

MMIC amplifiers

AlGaAs-GaAs HBT direct-coupled LNA, DC-10 GHz. *Kobayashi, K.W.*, +, *MGWL Sep 95* 308-310

CPW-fed multiple-slot antennas, CPW-fed multiple-slot antennas. *Tsai, H.S.*, +, *MGWL Jun 95* 180-182

HEMT MIMIC LNA, 140-GHz, design and perform. *Wang, H.*, +, *MGWL May 95* 150-152

Ka-band MMIC LNA, direct ion-implanted GaAs MESFETs. *Feng, M.*, +, *MGWL May 95* 156-158

LNA integrating common-source HEMT/HBT Darlington amp. *Kobayashi, K.W.*, +, *MGWL Dec 95* 442-444

LNA, monolithic HBT-regulated HEMT config. by MBE. *Streit, D.C.*, +, *MGWL Apr 95* 124-126

V-band high gain monolithic PHEMT LNA design. *Itoh, Y.*, +, *MGWL Feb 95* 48-49

W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y.*, +, *MGWL Feb 95* 59-61

wideband HEMT cascode low-noise amp., HBT bias regulation. *Kobayashi, K.W.*, +, *MGWL Dec 95* 457-459

MMIC amplifiers; cf. MMIC power amplifiers

MMIC mixers

F-band resistive InAlAs/InGaAs/InP HFET mixer. *Karlsson, C.*, +, *MGWL Nov 95* 394-395

MMIC oscillators

62-GHz monolithic InP-based HBT VCO. *Wang, H.*, +, *MGWL Nov 95* 388-390

InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312

Ka-band monolithic InGaAs/InP HBT VCOs, CPW struct. *Lin, J.*, +, *MGWL Nov 95* 379-381

RTD oscillators, bias stabilization. *Reddy, M.*, +, *MGWL Jul 95* 219-221

MMIC phase shifters

GaAs FET microwave switching/phase shifting. *Rossek, S.J.*, +, *MGWL Mar 95* 81-83

MMIC power amplifiers

44-GHz monolithic plane-wave amps. *Higgins, J.A.*, +, *MGWL Oct 95* 347-348

GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. *Aust, M.*, +, *MGWL Jan 95* 12-14

InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency. *Chi, J.C.L.*, +, *MGWL Jan 95* 21-23

pseudomorphic HEMT MIMIC power amp., 60 GHz design. *Seng-Woon Chen*, +, *MGWL Jun 95* 201-203

MMIC power dividers/combiners

CPW-fed multiple-slot antennas, CPW-fed multiple-slot antennas. *Tsai, H.S.*, +, *MGWL Jun 95* 180-182

MMICs

cross-T jn. for CPW stub-filters on MMICs. *Mernyei, F.*, +, *MGWL May 95* 139-141

edge-coupled microstrip loop resonators, capacitive loading. *Hong, J.S.*, +, *MGWL Mar 95* 87-89

floating pos./neg. inductors, act. inductive ccts. *El Khoury, S.*, *MGWL Oct 95* 321-323

hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A.*, +, *MGWL Sep 95* 287-289

masterslice MMICs on GaAs and Si, 3D technol. *Tokumitsu, T.*, +, *MGWL Nov 95* 411-413

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.*, +, *MGWL Dec 95* 460-501

W-band MMIC charactn., isothermal environ., pulsed network analyzer. *Wang, H.*, +, *MGWL Dec 95* 429-431

MMICs; cf. MMIC amplifiers; MMIC mixers; MMIC oscillators; MMIC phase shifters; MMIC power dividers/combiners; MMIC switches

MMIC switches

GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz. *Kobayashi, K.W.*, +, *MGWL Feb 95* 56-58

GaAs FET microwave switching/phase shifting. *Rossek, S.J.*, +, *MGWL Mar 95* 81-83

Mode coupling; cf. Coupled mode analysis

Modeling

Josephson jn. ccts., FD-TLM modelling. *Voelker, R.H.*, +, *MGWL May 95* 137-138

open-circuited coaxial probes, neurocomputed model. *Tuck, D.*, +, *MGWL Apr 95* 105-107

Modeling; cf. Simulation

Mode matching methods

inset dielec. guide structs. and vars., anal. *Zhewang Ma*, +, *MGWL Apr 95* 117-118

method of lines as variant of mode matching, partially filled waveguide appl. *Dreher, A.*, +, *MGWL Nov 95* 408-410

slit-coupled ridge waveguide T-jns., struct., anal. *Abdelmonem, A.*, +, *MGWL Feb 95* 40-41

waveguide filters, modal anal., hybrid MM/FE method. *Beyer, R.*, +, *MGWL Jan 95* 9-11

MODFET amplifiers

LNA, monolithic HBT-regulated HEMT config. by MBE. *Streit, D.C.*, +, *MGWL Apr 95* 124-126

MIMIC LNA, 140 GHz, design and perform. *Wang, H.*, +, *MGWL May 95* 150-152

V-band high gain monolithic PHEMT LNA design. *Itoh, Y.*, +, *MGWL Feb 95* 48-49

W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y.*, +, *MGWL Feb 95* 59-61

wideband HEMT cascode low-noise amp., HBT bias regulation. *Kobayashi, K.W.*, +, *MGWL Dec 95* 457-459

MODFET amplifiers; cf. MODFET power amplifiers

MODFET circuits

subharmonic gate mixer based on multichannel HEMT. *Allam, R.*, +, *MGWL Apr 95* 122-123

MODFET integrated circuits

GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. *Aust, M.*, +, *MGWL Jan 95* 12-14

InAlAs-InGaAs-InP HEMT LNA, cryogenically cooled perform., 44 GHz. *Huei Wang*, +, *MGWL Sep 95* 281-283

InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency. *Chi, J.C.L.*, +, *MGWL Jan 95* 21-23

MIMIC LNA, 140 GHz, design and perform. *Wang, H.*, +, *MGWL May 95* 150-152

pseudomorphic HEMT MIMIC power amp., 60 GHz design. *Seng-Woon Chen*, +, *MGWL Jun 95* 201-203

V-band high gain monolithic PHEMT LNA design. *Itoh, Y.*, +, *MGWL Feb 95* 48-49

W-band monolithic HEMT LNAs for microwave scanning radiometer. *Itoh, Y.*, +, *MGWL Feb 95* 59-61

MODFET integrated circuits; cf. MODFET amplifiers

MODFET power amplifiers

InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency. *Chi, J.C.L.*, +, *MGWL Jan 95* 21-23

pseudomorphic HEMT MIMIC power amp., 60 GHz design. *Seng-Woon Chen*, +, *MGWL Jun 95* 201-203

MODFETs

integrated on-drain capacitor, hybrid mixer appl. *Allam, R.*, +, *MGWL Mar 95* 76-78

LNA, monolithic HBT-regulated HEMT config. by MBE. *Streit, D.C.*, +, *MGWL Apr 95* 124-126

MODFETs; cf. Power MODFETs

Modulation/demodulation; cf. Millimeter wave modulation/demodulation; Optical modulation/demodulation; Submillimeter wave modulation/demodulation

Moment methods

complex permitt. meas. by open-ended coaxial probe. *Misra, D.*, *MGWL May 95* 161-163

double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun*, +, *MGWL Sep 95* 296-298

transverse slot in inhomogen. loaded rect. waveguide wall for array appls. *Joubert, J.*, *MGWL Feb 95* 37-39

with scaling fns., direct appl. to Maxwell's eqns. *Krumpholz, M.*, +, *MGWL Nov 95* 382-384

Monolithic microwave integrated circuits; cf. MMICs

Monte Carlo methods

microshield bandpass filter, 250 GHz design. *Weller, T.M.*, +, *MGWL May 95* 153-155

MSM diodes; cf. Schottky diodes

Multipoint circuits

3-port device, S-matrix reconstruction, two port meas. *Davidovitz, M.*, *MGWL Oct 95* 349-350

matched reciprocal lossless four-way divider, output port isolation, 8-port S-matrix. *Riblet, G.P.*, *MGWL Nov 95* 365-367

Multipoint circuits; cf. Two-port circuits

Mutual coupling

double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun*, +, *MGWL Sep 95* 296-298

Mutual coupling; cf. Antenna array mutual coupling

N

Negative resistance circuits

GaAs MIMIC TED-oscillator, 60 GHz, perform *Springer, A.L.*, + , *MGWL Apr 95* 114-116

MMIC act. floating pos. and neg. inductors, design. *El Khoury, S.*, *MGWL Oct 95* 321-323

Negative resistance devices; cf. Gunn devices; Tunnel diodes

Neural network applications

open-circuited coaxial probes, neurocomputed model. *Tuck, D.*, + , *MGWL Apr 95* 105-107

Neural networks; cf. Feedforward neural networks

Noise; cf. Phase noise

Nonhomogeneous media; cf. Electromagnetic propagation in nonhomogeneous media; Electromagnetic scattering by nonhomogeneous media

Nonlinear circuits

microwave ccts., piecewise stabil anal. *Basu, S.*, + , *MGWL May 95* 159-160

microwave doubler, Hopf bifurcation study. *Basu, S.*, + , *MGWL Sep 95* 293-295

series integrated RTDs, subharmonic excitation simul. *Runhua Sun*, + , *MGWL Jan 95* 18-20

third-order IMD in cascaded stages. *Maas, S.A.*, *MGWL Jun 95* 189-191

Nonlinear distortion; cf. Amplifier distortion; Intermodulation distortion

Nonlinear optics; cf. Optical mixers; Optical propagation in nonlinear media

N-port circuits; cf. Multiport circuits

Numerical analysis

dispersive media modeling, num. techs. comparison. *Siushansian, R.*, + , *MGWL Dec 95* 425-428

method of lines as variant of mode matching, partially filled waveguide appl. *Dreher, A.*, + , *MGWL Nov 95* 408-410

Numerical analysis; cf. Approximation methods; Convergence of numerical methods; Finite difference methods; Finite element methods; Mode matching methods; Moment methods; Monte Carlo methods; Sparse matrices; Transmission line matrix methods; Variational methods

Numerical stability

vector wave eqn., finite element time-domain anal. *Gedney, S.D.*, + , *MGWL Oct 95* 332-334

O

Ogives; cf. Radomes

Operational amplifiers

LNA, monolithic HBT-regulated HEMT config. by MBE. *Streit, D.C.*, + , *MGWL Apr 95* 124-126

Optical control

GaAs FET microwave switching/phase shifting. *Rossek, S.J.*, + , *MGWL Mar 95* 81-83

InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.*, + , *MGWL Jun 95* 198-200

optically controlled phased array radar receiver, SLM switched real time delays. *Fetterman, H.R.*, + , *MGWL Nov 95* 414-416

optically controlled photoconductive N-bit switched microwave signal attenuator. *Riza, N.A.*, + , *MGWL Dec 95* 448-450

Optical coupling

time-domain wave propag. algms., opt. waveguide feed method. *Chan, R.Y.*, + , *MGWL Aug 95* 246-248

Optical delay lines; cf. Optical fiber delay lines

Optical fiber applications

hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A.*, + , *MGWL Sep 95* 287-289

Optical fiber delay lines

hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A.*, + , *MGWL Sep 95* 287-289

Optical fibers

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.*, + , *MGWL Dec 95* 460-501

Optical frequency conversion; cf. Optical mixers

Optical materials/devices; cf. Optical mixers; Optical waveguides

Optical mixers

optoelectronic subharmonic PLL. *Gong-Ru Lin*, + , *MGWL Oct 95* 335-337

Optical modulation/demodulation

optoelectronic subharmonic PLL. *Gong-Ru Lin*, + , *MGWL Oct 95* 335-337

Optical modulation/demodulation; cf. Optical mixers; Spatial light modulators

Optical oscillators; cf. Lasers

Optical phase locked loops

optoelectronic subharmonic PLL. *Gong-Ru Lin*, + , *MGWL Oct 95* 335-337

Optical propagation

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.*, + , *MGWL Dec 95* 460-501

Optical propagation; cf. Optical propagation in nonlinear media; Optical transient propagation; Optical waveguides

Optical propagation in nonlinear media

nonlin. tapered opt. waveguide, beam propag. anal. *Hwei-Yuan Liu*, + , *MGWL Feb 95* 42-44

Optical refraction

opt. waveguide input method for time-domain wave propag. algms. *Chan, R.Y.*, + , *MGWL Aug 95* 246-248

Optical scattering

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.*, + , *MGWL Dec 95* 460-501

Optical transient propagation

nonlin. tapered opt. waveguide, beam propag. anal. *Hwei-Yuan Liu*, + , *MGWL Feb 95* 42-44

Optical waveguides

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.*, + , *MGWL Dec 95* 460-501

Optical waveguides; cf. Optical fibers

Optical waveguide theory

nonlin. tapered opt. waveguide, beam propag. anal. *Hwei-Yuan Liu*, + , *MGWL Feb 95* 42-44

time-domain wave propag. algms., opt. waveguide feed method. *Chan, R.Y.*, + , *MGWL Aug 95* 246-248

Optoelectronic devices; cf. Integrated optoelectronics; Lasers

Oscillator noise

InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, + , *MGWL Sep 95* 311-312

X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.*, + , *MGWL Apr 95* 108-110

Oscillators

correction to "Oscillator design for maximum added power" (Jun 94 205-207). *Kormanyos, B.K.*, + , *MGWL Mar 95* 93

Oscillators; cf. Distributed feedback oscillators; Gunn device oscillators; Lasers; Microwave oscillators; Millimeter wave oscillators; MMIC oscillators; Piezoelectric resonator oscillators, Tunable oscillators, Tunnel diode oscillators; Voltage controlled oscillators

Oscillator stability

Gunn Doppler self-oscillating mixer, perform. and optim. *Krasavin, J.*, + , *MGWL Jun 95* 177-179

RTD oscillators, bias stabilization. *Reddy, M.*, + , *MGWL Jul 95* 219-221

X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.*, + , *MGWL Apr 95* 108-110

P

Packaging; cf. Integrated circuit packaging

Parallel plate waveguides

Berenger ABC for evanescent waves. *De Moerloose, J.*, + , *MGWL Oct 95* 344-346

parallel-plate transm. media, absorbing boundary conditions, modeling of scatterers. *Spillard, C.*, + , *MGWL Aug 95* 241-242

Partial differential equations

EM scatt., perfectly matched absorbing boundary conditions. *Rappaport, C.M.*, *MGWL Mar 95* 90-92

EM waves reflectionless absorpt., perfectly matched layer concept. *Mitra, R.*, + , *MGWL Mar 95* 84-86

vector wave eqn., finite element time-domain anal. *Gedney, S.D.*, + , *MGWL Oct 95* 332-334

Partial differential equations; cf. Laplace equations; Maxwell's equations

Passive filters

cross-T jn. for CPW stub-filters on MMICs. *Mernyei, F.*, + , *MGWL May 95* 139-141

dual-mode rect. waveguide filters without resonator discontinuities. *Orta, R.*, + , *MGWL Sep 95* 302-304

microshield bandpass filter, 250 GHz design. *Weller, T.M.*, + , *MGWL May 95* 153-155

waveguide filters, modal anal., hybrid MM/FE method. *Beyer, R.*, + , *MGWL Jan 95* 9-11

Patch antennas; cf. Microstrip antennas

Periodic structures

reflector antenna FSS struct. using novel double layers, ang. sensitivity removal. *Shaker, J.*, + , *MGWL Oct 95* 324-325

Periodic structures; cf. Arrays**Permittivity**

- aperture coupling, adjacent layers, stripline geom. *Herscovici, N.I.*, +, *MGWL Jan 95* 24-25
- qtr.-wave Fresnel zone planar lens and antenna. *Hristov, H.D.*, +, *MGWL Aug 95* 249-251

Permittivity measurement

- complex permitt. meas. by open-ended coaxial probe. *Misra, D.*, *MGWL May 95* 161-163
- low loss materials, 3-posn. transm./refl. method. *Kwang-Hyun Baek*, +, *MGWL Jan 95* 3-5
- open-circuited coaxial probes, neurocomputed model. *Tuck, D.*, +, *MGWL Apr 95* 105-107

Perturbation methods

- sinusoidally excited FDTD anal., perturb. method. *Pekonen, O.P.M.*, +, *MGWL Dec 95* 432-434

Phased array radar

- optically controlled phased array radar receiver, SLM switched real time delays. *Fetterman, H.R.*, +, *MGWL Nov 95* 414-416

Phase locked loops

- pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215

Phase locked loops; cf. Optical phase locked loops**Phase noise**

- InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312
- X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.*, +, *MGWL Apr 95* 108-110

Phase shifters; cf. MMIC phase shifters**Phase synchronization; cf. Optical phase locked loops; Phase locked loops****Piecewise linear approximation**

- microwave ccts., piecewise stabil. anal. *Basu, S.*, +, *MGWL May 95* 159-160

Piezoelectric resonator oscillators

- X-band sapphire resonator-oscillator, temp. stabil. *Tobar, M.E.*, +, *MGWL Apr 95* 108-110

p-i-n diodes

- GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz. *Kobayashi, K.W.*, +, *MGWL Feb 95* 56-58

Planar arrays

- planar dipole array, enclosing curved FSS, coupling. *Parker, E.A.*, +, *MGWL Oct 95* 338-340

Planar transmission lines

- DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW. *Bhattacharya, U.*, +, *MGWL Feb 95* 50-52
- microshield bandpass filter, 250 GHz design. *Weller, T.M.*, +, *MGWL May 95* 153-155
- microstrip discontinuities, FDTD algm. *An Ping Zhao*, +, *MGWL Oct 95* 341-343

Planar transmission lines; cf. Microstrip; Stripline**Planar waveguides; cf. Coplanar waveguides; Planar transmission lines****PLL; cf. Phase locked loops****Polarization**

- reflector antenna FSS struct. using novel double layers, ang. sensitivity removal. *Shaker, J.*, +, *MGWL Oct 95* 324-325

Power amplifiers; cf. MMIC power amplifiers**Power bipolar transistor amplifiers; cf. Millimeter wave power bipolar transistor amplifiers; UHF power bipolar transistor amplifiers****Power dividers/combiners**

- matched reciprocal lossless four-way divider, output port isolation, 8-port S-matrix. *Riblet, G.P.*, *MGWL Nov 95* 365-367
- spatial power combining arrays, coupled Gunn oscillator, act. antenna. *Zhengping Ding*, +, *MGWL Aug 95* 264-266

Power dividers/combiners; cf. Microwave power dividers/combiners; Millimeter wave power dividers/combiners; MMIC power dividers/combiners**Power FET amplifiers; cf. MESFET power amplifiers; Microwave power FET amplifiers; Millimeter wave power FET amplifiers; MODFET power amplifiers****Power FETs; cf. Millimeter wave power FETs; Power MODFETs****Power generation; cf. Pulse power systems****Power integrated circuits**

- GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. *Aust, M.*, +, *MGWL Jan 95* 12-14
- InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency. *Chi, J.C.L.*, +, *MGWL Jan 95* 21-23
- pseudomorphic HEMT MIMIC power amp., 60 GHz design. *Seng-Woon Chen*, +, *MGWL Jun 95* 201-203

Power MODFETs

- GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. *Aust, M.*, +, *MGWL Jan 95* 12-14

InP-based power HEMT, W-band, 600 GHz $f_{\max}$. *Smith, P.M.*, +, *MGWL Jul 95* 230-232

Ka-Band HEMTs, source inductance effect on power perform. *Gaquiere, C.*, +, *MGWL Aug 95* 243-245

Power semiconductor devices; cf. Power integrated circuits**Printed circuits**

- circ. symmetric via in multilayered media, capacit. calc. *Tefiku, F.*, +, *MGWL Sep 95* 305-307

Probability; cf. Monte Carlo methods**Propagation**

- difference operators in method of lines, higher order approx. *Pregla, R.*, *MGWL Feb 95* 53-55
- vector wave eqn., finite element time-domain anal. *Gedney, S.D.*, +, *MGWL Oct 95* 332-334

Propagation; cf. Electromagnetic propagation**Pulse generation**

- microwave power pulse generation, mode locked array, coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215

Pulse generation; cf. Pulse power systems**Pulse power systems**

- microwave power pulse generation, mode locked array, coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215

Q**Quantum effect semiconductor devices**

- W-band medium power multistack quantum barrier varactor freq. tripler. *Rahal, A.*, +, *MGWL Nov 95* 368-370

Quantum effect semiconductor devices; cf. MODFETs; Quantum well devices**Quantum well devices**

- InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub)-mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200

R**Radar; cf. Frequency hopped radar; Phased array radar****Radar applications; cf. Radar imaging/mapping****Radar cross sections**

- FDTD time-to-freq. domain conversions, DFT/FFT comparison. *Furse, C.M.*, +, *MGWL Oct 95* 326-328

Radar equipment; cf. Radar receivers**Radar imaging/mapping**

- freq.-hopped microwave imaging, large inhomog. bodies. *Chew, W.C.*, +, *MGWL Dec 95* 439-441

Radar receivers

- optically controlled phased array radar receiver, SLM switched real time delays. *Fetterman, H.R.*, +, *MGWL Nov 95* 414-416

Radar scattering; cf. Radar cross sections**Radiometry; cf. Microwave radiometry; Millimeter wave radiometry****Radio receivers; cf. Millimeter wave receivers; Submillimeter wave receivers****Radomes**

- planar dipole array, enclosing curved FSS, coupling. *Parker, E.A.*, +, *MGWL Oct 95* 338-340

Rational matrices; cf. Scattering matrices**RCS (radar cross section); cf. Radar cross sections****Reactance circuits; cf. Lossless circuits****Reactors; cf. Inductors****Receivers; cf. Millimeter wave receivers; Radar receivers; Submillimeter wave receivers****Receiving antennas**

- planar dipole array, enclosing curved FSS, coupling. *Parker, E.A.*, +, *MGWL Oct 95* 338-340
- qtr.-wave Fresnel zone planar lens and antenna. *Hristov, H.D.*, +, *MGWL Aug 95* 249-251

Rectangular waveguides

- chiral-filled rect. waveguide, hybrid modes. *Samant, A.R.*, +, *MGWL May 95* 144-146
- cylindrical post with gap in rect. waveguide, anal. *Keam, R.*, *MGWL May 95* 147-149
- dispersive absorbing boundary condition, time domain diakoptics, Laguerre polynomials. *Mrozowski, M.*, +, *MGWL Jun 95* 183-185
- dual-mode rect. waveguide filters without resonator discontinuities. *Orta, R.*, +, *MGWL Sep 95* 302-304
- FDTD anal., time domain modal expansion. *Alimenti, F.*, +, *MGWL Oct 95* 351-353
- transverse slot in inhomogen. loaded rect. waveguide wall for array appls. *Joubert, J.*, *MGWL Feb 95* 37-39

Recursive estimation

waveguide dispersive absorbing boundary condition, time domain diakoptics, Laguerre polynomials *Mrozowski, M.*, +, *MGWL Jun 95* 183-185

Reflection; cf. Electromagnetic reflection**Reflection coefficient measurement; cf.** Scattering parameters measurement**Reflector antennas**

FSS struct., double layers, ang. sensitivity removal *Shaker, J.*, +, *MGWL Oct 95* 324-325

Resistance

microwave doubler, Hopf bifurcation study. *Basu, S.*, +, *MGWL Sep 95* 293-295

SHF doubler, quasi-periodic route, chaos. *Basu, S.*, +, *MGWL Jul 95* 224-226

Resonance

power amp., extended reson. tech. *Martin, A.*, +, *MGWL Oct 95* 329-331

Resonant tunneling devices

bias stabilization of RTD oscillators *Reddy, M.*, +, *MGWL Jul 95* 219-221
series integrated RTDs, subharmonic excitation simul. *Runhua Sun.*, +, *MGWL Jan 95* 18-20

Resonator filters; cf. Cavity resonator filters**Resonators; cf.** Cavity resonators; Dielectric resonators; Microwave resonators; Superconducting resonators**Ridge waveguides**

slit-coupled ridge waveguide T-jns., struct., anal. *Abdelmonem, A.*, +, *MGWL Feb 95* 40-41

S

Satellite broadcasting

qtr-wave Fresnel zone planar lens and antenna. *Hristov, H D.*, +, *MGWL Aug 95* 249-251

Scattering; cf. Electromagnetic scattering**Scattering matrices**

3-port device, S-matrix reconstruction, two port meas. *Davidovitz, M.*, *MGWL Oct 95* 349-350

matched reciprocal lossless four-way divider, output port isolation, 8-port S-matrix. *Riblet, G.P.*, *MGWL Nov 95* 365-367

slit-coupled ridge waveguide T-jns., struct., anal. *Abdelmonem, A.*, +, *MGWL Feb 95* 40-41

TLM mesh dispersion anal., scatt. matrix formulation. *Trenkic, V.*, +, *MGWL Mar 95* 79-80

YIG magnetostatic forward vol. wave resonators, nonreciprocal effects. *Huynen, I.*, +, *MGWL Jun 95* 195-197

Scattering matrices; cf. Transmission line matrix methods**Scattering parameters**

FDTD time-to-freq. domain conversions, DFT/FFT comparison. *Furse, C M.*, +, *MGWL Oct 95* 326-328

microshield bandpass filter, 250 GHz design. *Weller, T M.*, +, *MGWL May 95* 153-155

microwave act. cct. small sig. anal. using FDTD algm., MESFET amps. *Chien-Nan Kuo.*, +, *MGWL Jul 95* 216-218

slit-coupled ridge waveguide T-jns., struct., anal. *Abdelmonem, A.*, +, *MGWL Feb 95* 40-41

Scattering parameters measurement

3-port device, S-matrix reconstruction, two port meas. *Davidovitz, M.*, *MGWL Oct 95* 349-350

Ka-Band HEMTs, source inductance effect on power perform. *Gaquiere, C.*, +, *MGWL Aug 95* 243-245

leaky NWA calib. algm. *Ferrero, A.*, +, *MGWL Apr 95* 119-121

Schottky diode frequency converters

mm-wave tripler eval. of Schottky diode varactor *Koh, P J.*, +, *MGWL Mar 95* 73-75

Schottky diodes

DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW. *Bhattacharya, U.*, +, *MGWL Feb 95* 50-52

RTD oscillators, bias stabilization. *Reddy, M.*, +, *MGWL Jul 95* 219-221

Semiconductor device ion implantation; cf. Integrated circuit ion implantation**Semiconductor device measurements**

Ka-Band HEMTs, source inductance effect on power perform. *Gaquiere, C.*, +, *MGWL Aug 95* 243-245

Semiconductor device measurements; cf. Integrated circuit measurements**Semiconductor device noise; cf.** Integrated circuit noise**Semiconductor device packaging; cf.** Integrated circuit packaging**Semiconductor devices; cf.** Gunn devices; Quantum effect semiconductor devices**Semiconductor device thermal factors**

novel HBT with reduced thermal impedance *Hill, D.*, +, *MGWL Nov 95* 373-375

Semiconductor device thermal factors; cf. Integrated circuit thermal factors**Semiconductor diodes; cf.** Microwave diodes, Millimeter wave diodes; p-i-n diodes; Schottky diodes; Submillimeter wave diodes; Tunnel diodes; Varactors**Semiconductor diode switches**

GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz *Kobayashi, K.W.*, +, *MGWL Feb 95* 56-58

Semiconductor-insulator-semiconductor devices; cf. p-i-n diodes**Semiconductor switches; cf.** FET switches; Semiconductor diode switches**Series (math.); cf.** Volterra series**Signal analysis; cf.** Harmonic analysis**Signal generators**

DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW. *Bhattacharya, U.*, +, *MGWL Feb 95* 50-52

Signal generators; cf. Oscillators; Pulse generation**Silicon materials/devices**

C-band SiGe HBT class-A power amps., power handling capabilities *Erben, U.*, +, *MGWL Dec 95* 435-436

Simulation

3D TLM simul., super absorpt. boundary condition for guided waves. *Kukutsu, N.*, +, *MGWL Sep 95* 299-301

small-hole coupling, formalism for FDTD simul. *Bing-Zhong Wang.*, *MGWL Jan 95* 15-17

Simulation; cf. Circuit simulation**SLM; cf.** Spatial light modulators**Slot arrays**

44-GHz monolithic plane-wave amps. *Higgins, J A.*, +, *MGWL Oct 95* 347-348

MMIC multi-slot 50- Ω antennas for quasi-opt. ccts. *Tsai, H.S.*, +, *MGWL Jun 95* 180-182

spatial power combining arrays, coupled Gunn oscillator, act. antenna *Zhengping Ding.*, +, *MGWL Aug 95* 264-266

transverse slot in inhomogen. loaded rect. waveguide wall for array appls. *Joubert, J.*, *MGWL Feb 95* 37-39

Slots; cf. Apertures**Sparse matrices**

open region electrostatic problems incorporating meas. eqn. of invariance, FEM anal. *Gothard, G K.*, +, *MGWL Aug 95* 252-254

Spatial light modulators

InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200

optically controlled phased array radar receiver, SLM switched real time delays. *Fetterman, H R.*, +, *MGWL Nov 95* 414-416

Spectral analysis; cf. Harmonic analysis**Stability; cf.** Circuit stability, Frequency stability; Numerical stability**Stimulated emission; cf.** Lasers**Stochastic processes; cf.** Laguerre processes**Stripline**

aperture coupling, adjacent layers, stripline geom. *Herscovici, N I.*, +, *MGWL Jan 95* 24-25

impedance calc. by FDTD, num. errors. *Dib, N.*, +, *MGWL Oct 95* 354-355

Stripline couplers

aperture coupling, adjacent layers, stripline geom. *Herscovici, N.I.*, +, *MGWL Jan 95* 24-25

Stripline discontinuities

parallel-plate transm. media, absorbing boundary conditions, modeling of scatterers. *Spillard, C.*, +, *MGWL Aug 95* 241-242

Strip transmission lines; cf. Planar transmission lines**Submillimeter wave circuits; cf.** Submillimeter wave integrated circuits**Submillimeter wave diodes**

DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW. *Bhattacharya, U.*, +, *MGWL Feb 95* 50-52

Submillimeter wave filters

microshield bandpass filter, 250 GHz design. *Weller, T.M.*, +, *MGWL May 95* 153-155

Submillimeter wave integrated circuits

DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW. *Bhattacharya, U.*, +, *MGWL Feb 95* 50-52

Submillimeter wave modulation/demodulation

InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200

Submillimeter wave receivers

InGaAs/GaAs nipi-doped MQW struct., opt. controlled spatial modulation, (sub-)mm waves. *Delgado, G.*, +, *MGWL Jun 95* 198-200

Superconducting devices

papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.*, +, *MGWL Dec 95* 460-501

Superconducting devices; cf. Josephson devices; Superconducting filters; Superconducting microwave devices; Superconducting resonators

Superconducting films
19-pole cellular HTSC thin film bandpass filter. *Zhang, D.*, +, *MGWL Nov 95* 405-407

Superconducting filters
19-pole cellular HTSC thin film bandpass filter. *Zhang, D.*, +, *MGWL Nov 95* 405-407

Superconducting materials; cf. High-temperature superconductors; Superconducting films

Superconducting microwave devices
edge-coupled microstrip loop resonators, capacitive loading. *Hong, J.S.*, +, *MGWL Mar 95* 87-89

Superconducting resonators
edge-coupled microstrip loop resonators, capacitive loading. *Hong, J.S.*, +, *MGWL Mar 95* 87-89

Superconductors, high-temperature; cf. High-temperature superconductors

Surface waves; cf. Electromagnetic surface waves

Switched circuits
optically controlled photoconductive N-bit switched microwave signal attenuator. *Riza, N.A.*, +, *MGWL Dec 95* 448-450

Switches/switchgear; cf. MMIC switches

Switching amplifiers
class-E amp., high-efficiency microstrip transm. line config. *Mader, T.B.*, +, *MGWL Sep 95* 290-292

T

Thermal factors; cf. Cryogenic electronics; Integrated circuit thermal factors; Semiconductor device thermal factors

Thin film devices
19-pole cellular HTSC thin film bandpass filter. *Zhang, D.*, +, *MGWL Nov 95* 405-407

Time domain analysis
Josephson jn. ccts., FD-TLM modelling. *Voelker, R.H.*, +, *MGWL May 95* 137-138
moment method with scaling fns., direct appl. to Maxwell's eqns. *Krumholz, M.*, +, *MGWL Nov 95* 382-384
opt. waveguide input method for time-domain wave propag. algs. *Chan, R.Y.*, +, *MGWL Aug 95* 246-248
vector wave eqn., finite element time-domain anal. *Gedney, S.D.*, +, *MGWL Oct 95* 332-334

Time domain analysis; cf. FDTD methods

Time domain measurements
pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215

Time-varying circuits; cf. Switched circuits

Tracking loops; cf. Phase locked loops

Transferred electron devices; cf. Gunn devices

Transient analysis
nonlin. tapered opt. waveguide, beam propag. anal. *Hwei-Yuan Liu*, +, *MGWL Feb 95* 42-44

Transient analysis; cf. Circuit transient analysis; Electromagnetic transient analysis

Transmission coefficient measurement; cf. Scattering parameters measurement

Transmission line discontinuities; cf. Microstrip discontinuities; Stripline discontinuities

Transmission line matrix methods
3D TLM simul., super absorpt. boundary condition for guided waves. *Kukutsu, N.*, +, *MGWL Sep 95* 299-301
dispersion anal., scatt. matrix formulation. *Trenkic, V.*, +, *MGWL Mar 95* 79-80
Josephson jn. ccts., FD-TLM modelling. *Voelker, R.H.*, +, *MGWL May 95* 137-138
waveguide dispersive absorbing boundary condition, time domain diakoptics, Laguerre polynomials. *Mrozowski, M.*, +, *MGWL Jun 95* 183-185

Transmission line resonators; cf. Microstrip resonators

Transmission lines
papers from journals published in Australia, India, China, Korea, and Japan, 1994. *Koshiba, M.*, +, *MGWL Dec 95* 460-501

Transmission lines; cf. Planar transmission lines

Transmission line theory
impedance calc. by FDTD, num. errors. *Dib, N.*, +, *MGWL Oct 95* 354-355

Transmission line theory; cf. Waveguide theory

Transversal filters
hybrid transversal filter, MMIC and opt. fiber delay lines. *Yost, T.A.*, +, *MGWL Sep 95* 287-289

Tunable oscillators
Gunn Doppler self-oscillating mixer, perform. and optim. *Krasavin, J.*, +, *MGWL Jun 95* 177-179
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312

Tuners; cf. Varactor tuners

Tunnel devices/effects; cf. Josephson devices; Tunnel diodes

Tunnel diode oscillators
RTD oscillators, bias stabilization. *Reddy, M.*, +, *MGWL Jul 95* 219-221

Tunnel diodes
bias stabilization of RTD oscillators. *Reddy, M.*, +, *MGWL Jul 95* 219-221

Two-port circuits
correction to "Oscillator design for maximum added power" (Jun 94 205-207). *Kormanyos, B.K.*, +, *MGWL Mar 95* 93

U

UHF amplifiers; cf. UHF FET amplifiers

UHF bipolar transistor amplifiers; cf. UHF power bipolar transistor amplifiers

UHF circuits; cf. UHF integrated circuits

UHF FET amplifiers
class-E amp., high-efficiency microstrip transm. line config. *Mader, T.B.*, +, *MGWL Sep 95* 290-292

UHF integrated circuits
double bonding wires for HF IC packaging, parasitic impedance anal. *Sang-Ki Yun*, +, *MGWL Sep 95* 296-298

UHF power bipolar transistor amplifiers
C-band SiGe HBT class-A power amps., power handling capabilities. *Erben, U.*, +, *MGWL Dec 95* 435-436

Ultrafast electronics
Josephson jn. ccts., FD-TLM modelling. *Voelker, R.H.*, +, *MGWL May 95* 137-138

V

Varactors
correction to "Heterostructure barrier varactor simulation using an integrated hydrodynamic device/harmonic-balance circuit analysis technique" (Dec 94 411-413). *Jones, J.R.*, +, *MGWL Feb 95* 62
mm-wave tripler eval. of Schottky diode varactor. *Koh, P.J.*, +, *MGWL Mar 95* 73-75
SHF doubler, quasi-periodic route, chaos. *Basu, S.*, +, *MGWL Jul 95* 224-226
W-band medium power multistack quantum barrier varactor freq. tripler. *Rahal, A.*, +, *MGWL Nov 95* 368-370

Varactor tuners
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312

Variational methods
complex permitt. meas. by open-ended coaxial probe. *Misra, D.*, *MGWL May 95* 161-163

Vectors
wave eqn., finite element time-domain anal. *Gedney, S.D.*, +, *MGWL Oct 95* 332-334

Voltage controlled oscillators
62-GHz monolithic InP-based HBT VCO. *Wang, H.*, +, *MGWL Nov 95* 388-390
InAlAs/InGaAs HBT monolithic Ku-band VCO, CPW design. *Kobayashi, K.W.*, +, *MGWL Sep 95* 311-312
Ka-band monolithic InGaAs/InP HBT VCOs, CPW struct. *Lin, J.*, +, *MGWL Nov 95* 379-381
pulse microwave power generator, mode locked array of coupled PLLs. *Lynch, J.J.*, +, *MGWL Jul 95* 213-215

Volterra series
third-order IMD in cascaded stages. *Maas, S.A.*, *MGWL Jun 95* 189-191

W

Waveform generators; cf. Signal generators

Waveguide components
FDTD anal., time domain modal expansion. *Alimenti, F.*, +, *MGWL Oct 95* 351-353

Waveguide components; cf. Waveguide couplers; Waveguide filters

Waveguide couplers
double groove guide coupling structs. anal., eigenweighted boundary integral eqn. method. *Ma, J.*, +, *MGWL Nov 95* 396-398
slit-coupled ridge waveguide T-jns., struct., anal. *Abdelmonem, A.*, +, *MGWL Feb 95* 40-41

Waveguide discontinuities; cf. Waveguide junctions**Waveguide filters**

cross-T jn. for CPW stub-filters on MMICs. *Mernyei, F.*, +, *MGWL May 95* 139-141

modal anal. of waveguide filters *Beyer, R.*, +, *MGWL Jan 95* 9-11

Waveguide junctions

cross-T jn. for CPW stub-filters on MMICs. *Mernyei, F.*, +, *MGWL May 95* 139-141

slit-coupled ridge waveguide T-jns., struct., anal. *Abdelmonem, A.*, +, *MGWL Feb 95* 40-41

Waveguides; cf. Circular waveguides; Coplanar waveguides; Dielectric waveguides; Loaded waveguides; Parallel plate waveguides; Rectangular waveguides; Ridge waveguides**Waveguide theory**

Berenger ABC for evanescent waves *De Moerloose, J.*, +, *MGWL Oct 95* 344-346

chiral-filled rect. waveguide, hybrid modes. *Samant, A.R.*, +, *MGWL May 95* 144-146

curved metal boundaries, modelling in FDTD algm *Mezzanotte, P.*, +, *MGWL Aug 95* 267-269

cutoff freqs. of guiding structs., circ. and planar boundaries. *Das, B.N.*, +, *MGWL Jun 95* 186-188

cylindrical post with gap in rect. waveguide, anal. *Keam, R.*, *MGWL May 95* 147-149

dispersive absorbing boundary condition, time domain diakoptics, Laguerre polynomials. *Mrozowski, M.*, +, *MGWL Jun 95* 183-185

FDTD anal., time domain modal expansion. *Alimenti, F.*, +, *MGWL Oct 95* 351-353

inset dielec. guide structs. and vars., anal. *Zhewang Ma*, +, *MGWL Apr 95* 117-118

method of lines, combination, source method for anal. *Pregla, R.*, +, *MGWL Jul 95* 227-229

modal anal. of waveguide filters. *Beyer, R.*, +, *MGWL Jan 95* 9-11

planar microstrip discontinuities, FDTD algm. *An Ping Zhao*, +, *MGWL Oct 95* 341-343

slit-coupled ridge waveguide T-jns., struct., anal. *Abdelmonem, A.*, +, *MGWL Feb 95* 40-41

transverse slot in inhomogen. loaded rect. waveguide wall for array appls. *Joubert, J.*, *MGWL Feb 95* 37-39

Waveguide theory; cf. Optical waveguide theory**Wave propagation; cf. Propagation****Y****YIG films/devices**

YIG magnetostatic forward vol. wave resonators, nonreciprocal effects *Huynen, I.*, +, *MGWL Jun 95* 195-197