

CHAPTER 6

REFERENCES

BIBLIOGRAPHY

1. Neff, J.A. *The role of optics in future computational systems.* in *Topical Meeting on Optical Computing*. 1985. Incline Village, NV.
2. Anderson, D.Z. and J. Feinberg, *Optical Novelty Filters.* Ieee Journal of Quantum Electronics, 1989. **25**(3): p. 635-647.
3. Anderson, D.Z. and M.C. Erie, *Resonator Memories and Optical Novelty Filters.* Optical Engineering, 1987. **26**(5): p. 434-444.
4. Gan, Z., L. Bintz, and D.Z. Anderson, *Fiberoptic Acoustic Fourier Transducer for Audio Sound Processing.* Applied Optics, 1992. **31**(11): p. 1740-1744.
5. Zhou, G., et al., *A Life-Sized Physical Model of the Human Cochlea with Optical Holographic Readout.* Journal of the Acoustical Society of America, 1993. **93**(3): p. 1516-1523.
6. Anderson, D.Z., et al., *Photorefractive Flip-Flop.* Optics Letters, 1991. **16**(4): p. 250-252.
7. Crouch, D.D. and D.Z. Anderson, *Dynamics of an Optical Ring Circuit Having Photorefractive Gain and Loss and History-Dependent Feedback.* Journal of the Optical Society of America B-Optical Physics, 1991. **8**(6): p. 1315-1325.

8. Montemezzani, G., G. Zhou, and D.Z. Anderson, *Self-Organized Learning of Purely Temporal Information in a Photorefractive Optical-Resonator*. Optics Letters, 1994. **19**(23): p. 2012-2014.
9. Saffman, M., et al., *Topology-Preserving Mappings in a Self-Imaging Photorefractively Pumped Ring-Resonator*. Chaos Solitons & Fractals, 1994. **4**(11): p. 2077-2092.
10. Saffman, M., C. Benkert, and D.Z. Anderson, *Self-Organizing Photorefractive Frequency Demultiplexer*. Optics Letters, 1991. **16**(24): p. 1993-1995.
11. Anderson, D.Z., et al., *Optical implementation of a self-organizing feature extractor*. Advances in Neural Information Processing Systems IV, 1992.
12. Anderson, D.Z., M. Saffman, and A. Hermanns, *Manipulating the Information Carried by an Optical Beam with Reflexive Photorefractive Beam Coupling*. Journal of the Optical Society of America B-Optical Physics, 1995. **12**(1): p. 117-123.
13. White, J.O. and A. Yariv, *Photorefractive Crystals as Optical-Devices, Elements, and Processors*. Proceedings of the Society of Photo-Optical Instrumentation Engineers, 1984. **464**: p. 7-20.
14. Kwong, S.K., et al., *Conversion of Optical-Path Length to Frequency by an Interferometer Using Photorefractive Oscillation*. Applied Physics Letters, 1985. **47**(5): p. 460-462.
15. Huignard, J.P. and P. Gunter, *Photorefractive Materials and Their Applications .2. Survey of Applications - Introduction*. Topics in Applied Physics, 1989. **62**: p. 1-3.
16. Dunning, G.J., Y. Owechko, and B.H. Soffer, *Hybrid Optoelectronic Neural Networks Using a Mutually Pumped Phase-Conjugate Mirror*. Optics Letters, 1991. **16**(12): p. 928-930.
17. Ja, Y.H., *A Double-Coupler Optical Fiber Ring-Loop Resonator with Degenerate 2-Wave Mixing*. Optics Communications, 1991. **81**(1-2): p. 113-122.

18. Frauel, Y., et al., *Topological map from a photorefractive self-organizing neural network*. Optics Communications, 1997. **135**(1-3): p. 179-188.
19. Petrovic, M.S., et al., *Optical photorefractive flip-flop oscillator*. Optics Communications, 1997. **138**(4-6): p. 349-353.
20. Schwab, M., et al., *Fourier control of pattern formation in an interferometric feedback configuration*. Optics Communications, 1999. **170**(1-3): p. 129-136.
21. Hung, K.M., *Optical pattern recognition using a unidirectional photorefractive oscillator coupled with an angular multiplexing volume hologram*. Journal of Modern Optics, 2000. **47**(4): p. 655-661.
22. Desfarges-Berthelemot, A., et al., *Intracavity beam shaping and referenceless holography*. Optical Materials, 2001. **18**(1): p. 27-35.
23. Sedlatschek, M., et al., *Demonstrator Concepts and Performance of a Photorefractive Optical Novelty Filter*. Optical Materials, 1995. **4**(2-3): p. 376-380.
24. Jolliffe, I.T., *Principal component analysis*. 2nd ed. Springer series in statistics. 2002: New York: Springer-Verlag. 487.
25. Saffman, M., *Self-organized formation of image representations in photorefractive oscillators*, in *Physics (JILA)*. 1994, University of Colorado: Boulder.
26. Damiao, V., *Developments in photorefractive two-beam coupling systems*, in *Electrical Engineering (JILA)*. 2000, University of Colorado: Boulder, CO.
27. Khukhtarev, N.V., *Holographic storage in electro-optic crystals. II. Beam coupling - Light amplification*. Ferroelectrics, 1979. **22**: p. 961-4.
28. Yeh, P., *Introduction to Photorefractive Nonlinear Optics*, ed. Wiley-Interscience. 1993, New York: John Wiley & Sons, Inc.
29. Solymar, L., D.J. Webb, and A. Grunnet-Jepsen, *The physics and applications of photorefractive materials*. Oxford series in optical and imaging sciences. 1996: New York : Oxford University Press.

30. Klein, M.B. and G.C. Valley, *Characteristics of BaTiO₃ for electro-optic devices*. Proc. SPIE - Int. Soc. Opt. Eng., 1986. **1986b**(567): p. 116-20.
31. White, J.O., et al., *Coherent Oscillation by Self-Induced Gratings in the Photorefractive Crystal BaTiO₃*. Applied Physics Letters, 1982. **40**(6): p. 450-452.
32. Jain, R.K. and G.J. Dunning, *Spatial and Temporal Properties of a Continuous-Wave Phase-Conjugate Resonator Based on the Photorefractive Crystal BaTiO₃*. Optics Letters, 1982. **7**(9): p. 420-422.
33. Croningolomb, M. and A. Yariv, *Plane-Wave Theory of Nondegenerate Oscillation in the Linear Photorefractive Passive Phase-Conjugate Mirror*. Optics Letters, 1986. **11**(4): p. 242-244.
34. Kwong, S.K., M. Croningolomb, and A. Yariv, *Oscillation with Photorefractive Gain*. Ieee Journal of Quantum Electronics, 1986. **22**(8): p. 1508-1523.
35. Dai, L.K., et al., *Photorefractive Mode-Coupling between 2 Unidirectional Ring Oscillators*. Applied Physics B-Photophysics and Laser Chemistry, 1991. **53**(3): p. 153-159.
36. Dalessandro, G., *Spatiotemporal Dynamics of a Unidirectional Ring Oscillator with Photorefractive Gain*. Physical Review A, 1992. **46**(5): p. 2791-2802.
37. Dambly, L. and H. Zeghlache, *Theory of a Multimode Photorefractive Oscillator - Quantitative Results on the Frequency-Shift*. Physical Review A, 1994. **49**(5): p. 4043-4054.
38. Kaczmarek, M. and R.W. Eason, *Conditions for efficient build-up of power in photorefractive ring cavities*. Optics Communications, 1998. **154**(5-6): p. 334-338.
39. Sandfuchs, O., et al., *Spatio-temporal dynamics in photorefractive two-wave mixing configurations: the counterpropagating geometry and the unidirectional ring oscillator*. Chaos Solitons & Fractals, 1999. **10**(4-5): p. 709-724.

40. Montemezzani, G., et al., *Origin of the Lobe Structure in Photorefractive Beam Fanning*. Physical Review A, 1995. **52**(2): p. 1791-1794.
41. Rothe, H., O. Ginter, and C. Woldenga, *Assessment and Robust Reconstruction of Laser-Radar Signals*. Optics and Laser Technology, 1993. **25**(5): p. 289-297.
42. Kim, K.T., D.K. Seo, and H.T. Kim, *Efficient radar target recognition using the MUSIC algorithm and invariant features*. Ieee Transactions on Antennas and Propagation, 2002. **50**(3): p. 325-337.
43. Zhang, Y.W. and Y.L. Ma, *CGHA for principal component extraction in the complex domain*. Ieee Transactions on Neural Networks, 1997. **8**(5): p. 1031-1036.
44. Du, K.L., et al., *Neural methods for antenna array signal processing: A review*. Signal Processing, 2002. **82**(4): p. 547-561.
45. Kung, S.Y., K.I. Diamantaras, and J.S. Taur, *Adaptive Principal Component Extraction (Apex) and Applications*. Ieee Transactions on Signal Processing, 1994. **42**(5): p. 1202-1217.
46. Becker, S. and M. Plumbley, *Unsupervised neural network learning procedures for feature extraction and classification*. Applied Intelligence, 1996. **6**(3): p. 185-203.
47. Jang, J.S. and D.H. Shin, *Parallel optical-feature extraction by use of rotationally multiplexed holograms*. Optics Letters, 1996. **21**(19): p. 1612-1614.
48. Zhang, H., et al., *Image feature extraction with various wavelet functions in a photorefractive joint transform correlator*. Optics Communications, 2000. **185**(4-6): p. 277-284.
49. Sheng, Y.L. and C. Lejeune, *Invariant Pattern-Recognition Using Fourier-Mellin Transforms and Neural Networks*. Journal of Optics-Nouvelle Revue D Optique, 1991. **22**(5): p. 223-228.
50. Gindi, G.R. and A.F. Gmitro, *Optical-Feature Extraction Via the Radon-Transform*. Optical Engineering, 1984. **23**(5): p. 499-506.

51. Qu, J.A., H.P. Chang, and S.M. Xiong, *Optical processing of light-induced autofluorescence for characterization of tissue pathology*. Optics Letters, 2001. **26**(16): p. 1268-1270.
52. Bacci, M., et al., *Non-invasive fibre optic Fourier transform-infrared reflectance spectroscopy on painted layers - Identification of materials by means of principal component analysis and Mahalanobis distance*. Analytica Chimica Acta, 2001. **446**(1-2): p. 15-21.
53. Freitag, H., T. Huth-Fehre, and K. Cammann, *Rapid identification of plastics from electronic devices with NIR-spectroscopy*. Analytical Letters, 2000. **33**(7): p. 1425-1431.
54. Bjorsvik, H.R., *Reaction monitoring in explorative organic synthesis using fiber-optical NIR spectroscopy and principal component analysis*. Applied Spectroscopy, 1996. **50**(12): p. 1541-1544.
55. Okamoto, G.T., *Smart Antenna Systems and Wireless LANS*, ed. Kluwer. 1999: Norwell.
56. Meridith, S. and A. Crowley, *Smart system antennas*. Mobile Radio Technology, 1997.
57. Widrow, B. and S. Stearns, *Adaptive signal processing*, ed. P. Hall. 1985.
58. Haykin, S., *Unsupervised Adaptive Filtering, Volume 1: Blind Source Separation*, ed. Wiley-Interscience. Vol. 1. 2000. 460.
59. Cardoso, J.F. *On the performance of orthogonal source separation algorithms*. in *EUSIPCO*. 1994. Edimburgh, Scotland.
60. McGrath, D.T., *Planar 3-Dimensional Constrained Lenses*. Ieee Transactions on Antennas and Propagation, 1986. **34**(1): p. 46-50.
61. Ishio, H. and S. Shimada, *Optical amplifiers and their applications*. 1994, New York: New York : Wiley.
62. Zozulya, A.A., M. Saffman, and D.Z. Anderson, *Stability Analysis of 2 Photorefractive Ring-Resonator Circuits - the Flip-Flop and the Feature Extractor*. Journal of the Optical Society of America B-Optical Physics, 1995. **12**(6): p. 1036-1047.

63. Comon, P., *Independent Component Analysis, a New Concept*. Signal Processing, 1994. **36**(3): p. 287-314.
64. Yeh, P., *Theory of Unidirectional Photorefractive Resonators*. J. Opt. Soc. Am. B, 1985. **2**: p. 1924-8.
65. Hyvärinen, A. and J. Karhunen, *Independent component analysis*. 2001: Wiley-Interscience. 504.
66. Roland, C. and J. Palicot. *A blind recognition of the transmitted signal for a self-adaptive re-configurable terminal*. in *Proc. IST Mobile Communication Summit*. 2001. Barcelona, Spain.
67. Hollung, S., A.E. Cox, and Z.B. Popovic, *A bi-directional quasi-optical lens amplifier*. Ieee Transactions on Microwave Theory and Techniques, 1997. **45**(12): p. 2352-2357.
68. Popovic, Z. and A. Mortazawi, *Quasi-optical transmit/receive front ends*. Ieee Transactions on Microwave Theory and Techniques, 1998. **46**(11): p. 1964-1975.
69. Anderson, D.Z., et al., *-70 dB optical carrier suppression by two-beam coupling in photorefractive media*. Journal of Applied Physics, 2000 (?). **invited**: p. 743-748.