

## 1 Dissertations, authored books and edited volumes

- Y. Censor, *Linear Inequalities and Global Univalence of Mappings*, M.Sc. Thesis (Hebrew), Department of Mathematics, The Technion–IIT, Haifa, Israel, July 1969.
- Y. Censor, *Contributions to Optimization Theory: Multiobjective Problems*, D.Sc. Thesis (Hebrew), Department of Mathematics, The Technion–IIT, Haifa, Israel, August 1975.
- Y. Censor, T. Elfving and G.T. Herman, (Editors) *Linear Algebra in Image Reconstruction from Projections*, Elsevier Science Publishing Company, New York, NY, USA, 1990. Special Volume of the Journal “Linear Algebra and Its Applications”, (LAA), Volume **130** (305pp., ISSN 0024-3795).
- Y. Censor and S.A. Zenios, *Introduction to Methods of Parallel Optimization*, Instituto de Matemática Pura e Aplicada (IMPA), Rio de Janeiro, RJ, Brazil, 1993 (280pp., ISBN 85-244-0074-9).
- Y. Censor and S.A. Zenios, *Parallel Optimization: Theory, Algorithms, and Applications*, Oxford University Press, New York, NY, USA, 1997 (xxviii+576pp., ISBN 0-19-510062-X).
- Y. Censor and S. Reich (Editors), *Recent Developments in Optimization Theory and Nonlinear Analysis*, Contemporary Mathematics **204**, American Mathematical Society, Providence, RI, USA, 1997 (278pp., ISBN 0-8218-0515-0).
- D. Butnariu, Y. Censor and S. Reich (Editors), *Inherently Parallel Algorithms in Feasibility and Optimization and Their Applications*, Elsevier Science Publishers, Amsterdam, The Netherlands, 2001 (x+504pp., ISBN 0-444-50595-4).
- Y. Censor and M. Ding (Editors), *Visualization and Optimization Techniques*, SPIE Proceedings Volume 4553, SPIE-The International Society for Optical Engineering, Bellingham, WA, USA, 2001 (xi+404pp., ISBN 0-8194-4281-X).
- Y. Censor, J.M. Galvin, M. Langer and Y. Xiao (Editors), *Linear and Nonlinear Models and Algorithms in Intensity-Modulated Radiation Therapy*, Elsevier Science Publishing Company, New York, NY, USA, 2008. Special Issue of the Journal “Linear Algebra and Its Applications” (LAA), Volume **428**, Issues 5-6 (219pp., ISSN 0024-3795).
- Y. Censor, M. Jiang and A.K. Louis (Editors), *Mathematical Methods in Biomedical Imaging and Intensity-Modulated Radiation Therapy (IMRT)*, Edizioni della Normale, Pisa, Italy, 2008 (xx+526pp., ISBN 978-88-7642-314-7).
- Y. Censor, M. Jiang and G. Wang (Editors), *Biomedical Mathematics: Promising Directions in Imaging, Therapy Planning and Inverse Problems*, Medical Physics Publishing, Madison, WI, USA, 2009, to appear.

## 2 Research articles in refereed journals, book collections and conference proceedings

1971

1. Y. Censor, "On the maximal number of solutions of a problem in linear inequalities", *Israel Journal of Mathematics* **9**: 27–33, (1971).

1975

2. Y. Censor, "General oscillation spaces and conullity of FK-spaces", *Journal of the London Mathematical Society* (2) **10**: 105–112, (1975).

1977

3. Y. Censor, "Pareto optimality in multiobjective problems", *Applied Mathematics and Optimization* **4**: 41–59, (1977).

1978

4. Y. Censor, "General conservative FK-spaces and an extended notion of conullity", *Journal d'Analyse Mathématique* **33**: 105–120, (1978).

1979

5. Y. Censor, D.E. Gustafson, A. Lent and H. Tuy, "A new approach to the emission computerized tomography problem: simultaneous calculation of attenuation and activity coefficients", *IEEE Transactions on Nuclear Science* **NS-26**: 2775–2779, (1979).
6. Y. Censor, A.V. Lakshminarayanan and A. Lent, "Relaxational methods for large scale entropy optimization problems, with application in image reconstruction", in: *Information Linkage Between Applied Mathematics and Industry* (P.C.C. Wang et al., Editors), Academic Press, New York, NY, USA, 1979, pp. 539–546.
7. Y. Censor, "Necessary conditions for Pareto optimality in simultaneous Chebyshev best approximation", *Journal of Approximation Theory* **27**: 127–134, (1979).
8. Y. Censor and G.T. Herman, "Row-generation methods for feasibility and optimization problems involving sparse matrices and their applications", in: *Sparse Matrix Proceedings – 1978*, (I.S. Duff and G.W. Stewart, Editors), SIAM, Philadelphia, PA, USA, 1979, pp. 197–219.

1980

9. A. Lent and Y. Censor, "Extensions of Hildreth's row-action method for quadratic programming", *SIAM Journal on Control and Optimization* **18**: 444–454, (1980).
10. M.D. Altschuler, Y. Censor, P.P.B. Eggermont, G.T. Herman, Y.H. Kuo, R.M. Lewitt, M. McKay, H.K. Tuy, J.K. Udupa and M.M. Yau, "Demonstration of a software package for the reconstruction of the dynamically changing structure of the human heart from cone beam x-ray projections", *Journal of Medical Systems* **4**: 289–304, (1980).

1981

11. Y. Censor, "Intervals in linear and nonlinear problems of image reconstruction", in: *Mathematical Aspects of Computerized Tomography*, (G.T. Herman and F. Natterer, Editors), Lecture Notes in Medical Informatics, Springer-Verlag, Berlin, Germany, Vol. **8** (1981), pp. 152–159.
12. Y. Censor and A. Lent, "An iterative row-action method for interval convex programming", *Journal of Optimization Theory and Applications* **34**: 321–353, (1981).
13. M.D. Altschuler, Y. Censor, G.T. Herman, A. Lent, R.M. Lewitt, S.N. Srihari, H. Tuy and J.K. Udupa, "Mathematical aspects of image reconstruction from projections", in: *Progress in Pattern Recognition*, (L.N. Kanal and A. Rosenfeld, Editors), North-Holland, Amsterdam, The Netherlands, Vol. **1** (1981), pp. 323–375.
14. Y. Censor, "Row-action methods for huge and sparse systems and their applications", *SIAM Review* **23**: 444–466, (1981).  
**1982**
15. Y. Censor and T. Elfving, "New methods for linear inequalities", *Linear Algebra and Its Applications* **42**: 199–211, (1982).
16. Y. Censor and A. Lent, "Cyclic subgradient projections", *Mathematical Programming* **24**: 233–235, (1982).
17. Y. Censor, "Entropy optimization via entropy projections", in: *System Modeling and Optimization*, (R.F. Drenick and F. Kozin, Editors), Lecture Notes in Control and Information Sciences, Springer-Verlag, Berlin, Germany, Vol. **38** (1982), pp. 450–454.  
**1983**
18. Y. Censor, "Finite series-expansion reconstruction methods", *Proceedings of the IEEE* **71**: 409–419, (1983). Reprinted in: *Imaging Technology* (H. Lee and G. Wade, Editors), IEEE Press, New York, NY, USA, 1986, pp. 209–219.
19. Y. Censor, T. Elfving and G.T. Herman, "Methods for entropy maximization with applications in image processing", in: *Proceedings of the Third Scandinavian Conference on Image Analysis*, (P. Johansen and P.W. Becker, Editors), Chartwell-Bratt, Kent, UK, 1983, pp. 296–300.
20. Y. Censor, P.P.B. Eggermont and D. Gordon, "Strong underrelaxation in Kaczmarz's method for inconsistent systems", *Numerische Mathematik* **41**: 83–92, (1983).
21. Y. Censor, "Optimization methods", in: *Encyclopedia of Computer Science*, (A. Ralston and E.D. Reilly, Jr., Editors), Van Nostrand Reinhold Company, New York, NY, USA, Second Edition, 1983, pp. 1089–1090. Also in: Third Edition, 1993, pp. 1003–1005. A revised version appears in: *Encyclopedia of Computer Science*, (A. Ralston, E.D. Reilly and D. Hemmendinger, Editors), Nature Publishing Group, London, UK, Fourth Edition, 2000, pp. 1339–1341.
22. R. Aharoni, A. Berman and Y. Censor, "An interior points algorithm for the convex feasibility problem", *Advances in Applied Mathematics* **4**: 479–489, (1983).  
**1984**
23. Y. Censor, "Iterative methods for the convex feasibility problem", *Annals of Discrete Mathematics* **20**: 83–91, (1984).

24. M.D. Altschuler and Y. Censor, “Feasibility solutions in radiation therapy treatment planning”, in: *Proceedings of the Eighth International Conference on the Use of Computers in Radiation Therapy*, IEEE Computer Society Press, Silver Spring, MD, USA, 1984, pp. 220–224.

**1985**

25. Y. Censor, “An automatic relaxation method for solving interval linear inequalities”, *Journal of Mathematical Analysis and Applications* **106**: 19–25, (1985).
26. M.D. Altschuler, W.D. Powlis and Y. Censor, “Teletherapy treatment planning with physician requirements included in the calculation: I. Concepts and methodology”, in: *Optimization of Cancer Radiotherapy* (B.R. Paliwal, D.E. Herbert and C.G. Orton, Editors), American Institute of Physics, New York, NY, USA, 1985, pp. 443–452.
27. W.D. Powlis, M.D. Altschuler and Y. Censor, “Teletherapy treatment planning with physician requirements included in the calculation: II. Clinical applications”, in: *Optimization of Cancer Radiotherapy*, (B.R. Paliwal, D.E. Herbert and C.G. Orton, Editors), American Institute of Physics, New York, NY, USA, 1985, pp. 453–461.
28. Y. Censor, T. Elfving and G.T. Herman, “A method of iterative data refinement and its applications”, *Mathematical Methods in the Applied Sciences* **7**: 108–123, (1985).
29. G.T. Herman, Y. Censor, D. Gordon and R.M. Lewitt, “Comment” (on: Y. Vardi, L.A. Shepp and L. Kaufman, “On a statistical model for positron emission tomography”), *Journal of the American Statistical Association* **80**: 22–25, (1985).

**1987**

30. Y. Censor and A. Lent, “Optimization of “log  $x$ ” entropy over linear equality constraints”, *SIAM Journal on Control and Optimization* **25**: 921–933, (1987).
31. Y. Censor, W.D. Powlis and M.D. Altschuler, “On the fully discretized model for the inverse problem of radiation therapy treatment planning”, in: *Proceedings of the Thirteenth Annual Northeast Bioengineering Conference*, (K.R. Foster, Editor), Institute of Electrical and Electronics Engineers (IEEE), New York, NY, USA, Vol. **1** (1987), pp. 211–214.
32. Y. Censor and G.T. Herman, “On some optimization techniques in image reconstruction from projections”, *Applied Numerical Mathematics* **3**: 365–391, (1987).
33. Y. Censor, T. Elfving and G.T. Herman, “Special-purpose algorithms for linearly constrained entropy maximization”, in: *Maximum-Entropy and Bayesian Spectral Analysis and Estimation Problems*, (C.R. Smith and G.J. Erickson, Editors), D. Reidel Publishing, Dordrecht, Holland, 1987, pp. 241–254.
34. Y. Censor and J. Segman, “On block-iterative entropy maximization”, *Journal of Information and Optimization Sciences* **8**: 275–291, (1987).

**1988**

35. Y. Censor, M.D. Altschuler and W.D. Powlis, “A computational solution of the inverse problem in radiation-therapy treatment planning”, *Applied Mathematics and Computation* **25**: 57–87, (1988).

36. Y. Censor, M.D. Altschuler, W.D. Powlis and M.M. Kligerman, “Combining plans in radiotherapy treatment planning”, *Mathematical and Computer Modelling* **11**: 1035–1037, (1988).
  37. Y. Censor, M.D. Altschuler and W.D. Powlis, “On the use of Cimmino’s simultaneous projections method for computing a solution of the inverse problem in radiation therapy treatment planning”, *Inverse Problems* **4**: 607–623, (1988).
  38. Y. Censor, “On the selective use of iterative algorithms for inversion problems in image reconstruction and radio-therapy”, in: *Proceedings of the 12th World Congress on Scientific Computation — IMACS 1988*, (R. Vichnevetsky, P. Borne and J. Vignes, Editors), Gerfidn, Paris, France, Vol. **4** (1988), pp. 563–565.
  39. Y. Censor, “Parallel application of block-iterative methods in medical imaging and radiation therapy”, *Mathematical Programming* **42**: 307–325, (1988).
  40. S.A. Zenios and Y. Censor, “Vectorization and multitasking of block-iterative algorithms for image reconstructions”, in: *Science and Engineering on Cray Supercomputers*, Cray Research, Inc., Minneapolis, MN, USA, 1988, pp. 241–264.
- 1989**
41. W.D. Powlis, M.D. Altschuler, Y. Censor and E.L. Buhle, “Semi-automated radiotherapy treatment planning with a mathematical model to satisfy treatment goals”, *International Journal Radiation Oncology Biology Physics* **16**: 271–276, (1989).
  42. R. Aharoni and Y. Censor, “Block-iterative projection methods for parallel computation of solutions to convex feasibility problems”, *Linear Algebra and Its Applications* **120**: 165–175, (1989).
  43. Y. Censor and S.C. Shwartz, “An iterative approach to plan combination in radiotherapy”, *International Journal of Bio-Medical Computing* **24**: 191–205, (1989).
- 1990**
44. D. Butnariu and Y. Censor, “On the behavior of a block-iterative projection method for solving convex feasibility problems”, *International Journal of Computer Mathematics* **34**: 79–94, (1990).
  45. Y. Censor, A.R. De Pierro, T. Elfving, G.T. Herman and A.N. Iusem, “On iterative methods for linearly constrained entropy maximization”, in: *Numerical Analysis and Mathematical Modelling*, (A. Wakulicz, Editor), Banach Center Publications, Vol. **24**, PWN-Polish Scientific Publishers, Warsaw, Poland, (1990), pp. 145–163.
- 1991**
46. Y. Censor, A.R. De Pierro and A.N. Iusem, “Optimization of Burg’s entropy over linear constraints”, *Applied Numerical Mathematics* **7**: 151–165, (1991).
  47. A. Lent and Y. Censor, “The primal-dual algorithm as a constraint-set-manipulation device”, *Mathematical Programming* **50**: 343–357, (1991).
  48. Y. Censor and S.A. Zenios, “Interval-constrained matrix balancing”, *Linear Algebra and Its Applications* **150**: 393–421, (1991).
  49. S.A. Zenios and Y. Censor, “Massively parallel row-action algorithms for some nonlinear transportation problems”, *SIAM Journal on Optimization* **1**: 373–400, (1991).

50. S.A. Zenios and Y. Censor, “Parallel computing with block-iterative image reconstruction algorithms”, *Applied Numerical Mathematics* **7**: 399–415, (1991).
51. D. Butnariu and Y. Censor, “A method for approximating the solution set of a system of convex inequalities by polytopes”, *Journal of Computational and Applied Mathematics* **36**: 289–304, (1991).
52. Y. Censor, “On variable block algebraic reconstruction techniques”, in: *Mathematical Methods in Tomography* (G.T. Herman, A.K. Louis and F. Natterer, Editors), Lecture Notes in Mathematics, Springer-Verlag, Berlin, Germany, Vol. **1497** (1991), pp. 133–140.
- 1992**
53. Y. Censor and S.A. Zenios, “Proximal minimization algorithm with D-functions”, *Journal of Optimization Theory and Applications* **73**: 451–464, (1992).
54. Y. Censor and S.A. Zenios, “On the use of D-functions in primal-dual methods and in the proximal minimization algorithm”, in: *Optimization and Nonlinear Analysis*, (A. Ioffe, M. Marcus and S. Reich, Editors), Longman Scientific & Technical, London, UK (1992), pp. 76–97.
55. M.D. Altschuler, Y. Censor and W.D. Powlis, “Feasibility and optimization methods in teletherapy planning”, in: *Advances in Radiation Oncology Physics: Dosimetry, Treatment Planning and Brachytherapy*, (J.A. Purdy, Editor), Medical Physics Monograph No. 19, American Association of Physicists in Medicine (AAPM), American Institute of Physics, Woodbury, NY, USA, 1992, pp. 1022–1057.
- 1994**
56. D. Butnariu and Y. Censor, “Strong convergence of almost simultaneous block-iterative projection methods in Hilbert spaces”, *Journal of Computational and Applied Mathematics* **53**: 33–42, (1994).
57. Y. Censor and T. Elfving, “A multiprojection algorithm using Bregman projections in a product space”, *Numerical Algorithms* **8**: 221–239, (1994).
- 1995**
58. Y. Censor, E.D. Chajakis and S.A. Zenios, “Parallelization strategies of a row-action method for multicommodity network flow problems”, *Parallel Algorithms and Applications* **6**: 179–205, (1995).
59. T. Kotzer, N. Cohen, J. Shamir and Y. Censor, “Multi-distance multi-projection, parallel projection method”, in: *Optical Computing*, (B.S. Wherrett and P. Chavel, Editors) Institute of Physics Conference Series, Vol. **139**, pp. 377–380, IOP Publishing, Bristol, UK, 1995.
- 1996**
60. Y. Censor and S. Reich, “Iterations of paracontractions and firmly nonexpansive operators with applications to feasibility and optimization”, *Optimization* **37**: 323–339, (1996).
61. J. Stricker, Y. Censor and B. Zakharin, “Inhomogeneous turbulent field diagnostics by distance-dependent tomographic reconstructions techniques”, *Journal of Scientific Computing* **11**: 207–227, (1996).

62. G.T. Herman, M. Chan, Y. Censor, E. Levitan, R.M. Lewitt and T.K. Narayan, “Maximum a posteriori image reconstruction from projections”, in: *Image Models and Their Speech Model Cousins*, (S.E. Levinson and L.A. Shepp, Editors), The IMA Volumes in Mathematics and its Applications, Vol. **80**, Springer-Verlag, New York, NY, USA, 1996, pp. 63–89.
- 1997**
63. D. Butnariu, Y. Censor and S. Reich, “Iterative averaging of entropic projections for solving stochastic convex feasibility problems”, *Computational Optimization and Applications* **8**: 21–39, (1997).
- 1998**
64. Y. Censor, A.N. Iusem and S.A. Zenios, “An interior point method with Bregman functions for the variational inequality problem with paramonotone operators”, *Mathematical Programming* **81**: 373–400, (1998).
65. Y. Censor and S. Reich, “The Dykstra algorithm with Bregman projections”, *Communications in Applied Analysis* **2**: 407–419, (1998).
- 1999**
66. Y. Censor, “Mathematical aspects of radiation therapy treatment planning: Continuous inversion versus full discretization and optimization versus feasibility”, in: *Computational Radiology and Imaging: Therapy and Diagnostics* (C. Börgers and F. Natterer, Editors), The IMA Volumes in Mathematics and its Applications, Vol. **110**, Springer-Verlag, New York, NY, USA, 1999, pp. 101–112.
67. Y. Censor and S. Matej, “Binary steering of non-binary iterative algorithms”, in: *Discrete Tomography: Foundations, Algorithms and Applications* (G.T. Herman and A. Kuba, Editors), Birkhäuser, Boston, MA, USA, 1999, pp. 285–296.
68. L.M. Bregman, Y. Censor and S. Reich, “Dykstra’s algorithm as the nonlinear extension of Bregman’s optimization method”, *Journal of Convex Analysis* **6**: 319–334, (1999).
- 2001**
69. Y. Censor, D. Gordon and R. Gordon, “Component averaging: An efficient iterative parallel algorithm for large and sparse unstructured problems”, *Parallel Computing* **27**: 777–808, (2001).
70. Y. Censor, T. Elfving and G.T. Herman, “Averaging strings of sequential iterations for convex feasibility problems”, in: *Inherently Parallel Algorithms in Feasibility and Optimization and Their Applications* (D. Butnariu, Y. Censor and S. Reich, Editors), Elsevier Science Publishers, Amsterdam, The Netherlands, 2001, pp. 101–114.
71. Y. Censor, D. Gordon and R. Gordon, “BICAV: A block-iterative, parallel algorithm for sparse systems with pixel-related weighting”, *IEEE Transactions on Medical Imaging* **20**: 1050–1060, (2001).
72. Y. Censor, “On sequential and parallel projection algorithms for feasibility and optimization” (Keynote Paper), in: *Visualization and Optimization Techniques* (Y. Censor and M. Ding, Editors), SPIE Proceedings Volume 4553, SPIE-The International Society for Optical Engineering, Bellingham, WA, USA, 2001, pp. 1–9.
73. C. Byrne and Y. Censor, “Proximity function minimization using multiple Bregman projections, with applications to split feasibility and Kullback–Leibler distance minimization”, *Annals of Operations Research* **105**: 77–98, (2001).

74. Y. Censor, “Binary steering in discrete tomography reconstruction with sequential and simultaneous iterative algorithms”, *Linear Algebra and Its Applications* **339**: 111–124, (2001).
- 2002**
75. Y. Censor, N. Cohen, T. Kutscher (Kotzer) and J. Shamir, “Summed squared distance error reduction of simultaneous multiprojections and applications”, *Applied Mathematics and Computation* **126**: 157–179, (2002).
76. Y. Censor and S.A. Zenios, “Parallel algorithms in optimization”, in: *Handbook of Applied Optimization* (P.M. Pardalos and M.G.C. Resende, Editors), Oxford University Press, New York, NY, USA, 2002, pp. 544–559.
77. Y. Censor and T. Elfving, “Block-iterative algorithms with diagonally scaled oblique projections for the linear feasibility problem”, *SIAM Journal on Matrix Analysis and Applications* **24**: 40–58, (2002).
78. Y. Censor and G.T. Herman, “Block-iterative algorithms with underrelaxed Bregman projections”, *SIAM Journal on Optimization* **13**: 283–297, (2002).
- 2003**
79. D. Butnariu, C. Byrne and Y. Censor, “Redundant axioms in the definition of Bregman functions”, *Journal of Convex Analysis* **10**: 245–254, (2003).
80. Y. Xiao, Y. Censor, D. Michalski and J.M. Galvin, “The least-intensity feasible solution for aperture-based inverse planning in radiation therapy”, *Annals of Operations Research* **119**: 183–203, (2003).
81. Y. Censor and T. Elfving, “Iterative algorithms with seminorm-induced oblique projections”, *Abstract and Applied Analysis* **2003**: 387–406, (2003).
82. Y. Censor, “Mathematical optimization for the inverse problem of intensity modulated radiation therapy”, in: *Intensity-Modulated Radiation Therapy: The State of the Art*, (J.R. Palta and T.R. Mackie, Editors), American Association of Physicists in Medicine, Medical Physics Monograph No. 29, Medical Physics Publishing, Madison, WI, USA, 2003, pp. 25–49.
83. L.M. Bregman, Y. Censor, S. Reich and Y. Zepkowitz-Malachi, “Finding the projection of a point onto the intersection of convex sets via projections onto halfspaces”, *Journal of Approximation Theory* **124**: 194–218, (2003).
84. Y. Censor and E. Tom, “Convergence of string-averaging projection schemes for inconsistent convex feasibility problems”, *Optimization Methods and Software* **18**: 543–554, (2003).
- 2004**
85. C.O.S. Sorzano, R. Marabini, G.T. Herman, Y. Censor and J.M. Carazo, “Transfer function restoration in 3D electron microscopy via iterative data refinement”, *Physics in Medicine and Biology* **49**: 509–522, (2004).
86. D. Michalski, Y. Xiao, Y. Censor and J.M. Galvin, “The dose-volume constraint satisfaction problem for inverse treatment planning with field segments”, *Physics in Medicine and Biology* **49**: 601–616, (2004).

87. Y. Xiao, D. Michalski, Y. Censor and J.M. Galvin, “Inherent smoothness of intensity patterns for intensity modulated radiation therapy generated by simultaneous projection algorithms”, *Physics in Medicine and Biology* **49**: 3227–3245, (2004).
88. Y. Censor, A.R. De Pierro and M. Zaknoon, “Steered sequential projections for the inconsistent convex feasibility problem”, *Nonlinear Analysis: Theory, Methods & Applications (Series A: Theory and Methods)* **59**: 385–405, (2004).
- 2005**
89. A. Aleyner and Y. Censor, “Best approximation to common fixed points of a semigroup of nonexpansive operators”, *Journal of Nonlinear and Convex Analysis* **6**: 137–151, (2005).
90. Y. Censor, T. Elfving, N. Kopf and T. Bortfeld, “The multiple-sets split feasibility problem and its applications for inverse problems”, *Inverse Problems* **21**: 2071–2084, (2005).
- 2006**
91. Y. Censor and S.A. Zenios, “Parallel optimization methods”, in: *Handbook of Parallel Computing and Statistics* (E.J. Kontoghiorghes, Editor), Chapman & Hall/CRC Press, Boca Raton, FL, USA, 2006, pp. 199–224.
92. Y. Censor and A. Segal, “Algorithms for the quasiconvex feasibility problem”, *Journal of Computational and Applied Mathematics* **185**: 34–50, (2006).
93. Y. Censor, “Computational acceleration of projection algorithms for the linear best approximation problem”, *Linear Algebra and Its Applications* **416**: 111–123, (2006).
94. B. Johansson, T. Elfving, V. Kozlov, Y. Censor, P.-E. Forssén and G. Granlund, “The application of an oblique-projected Landweber method to a model of supervised learning”, *Mathematical and Computer Modelling* **43**: 892–909, (2006).
95. Y. Censor, T. Bortfeld, B. Martin and A. Trofimov, “A unified approach for inversion problems in intensity-modulated radiation therapy”, *Physics in Medicine and Biology* **51**: 2353–2365, (2006).
- 2007**
96. Y. Censor, A. Motova and A. Segal, “Perturbed projections and subgradient projections for the multiple-sets split feasibility problem”, *Journal of Mathematical Analysis and Applications* **327**: 1244–1256, (2007).
- 2008**
97. Y. Censor, J.M. Galvin, M. Langer and Y. Xiao, “Preface: Linear and Nonlinear Models and Algorithms in Intensity-Modulated Radiation Therapy (IMRT)”, *Linear Algebra and Its Applications* **428**: 1203–1206, (2008).
98. Y. Censor, A. Ben-Israel, Y. Xiao and J.M. Galvin, “On linear infeasibility arising in intensity-modulated radiation therapy inverse planning”, *Linear Algebra and Its Applications* **428**: 1406–1420, (2008).
99. Y. Censor, T. Elfving, G.T. Herman and T. Nikazad, “On diagonally-relaxed orthogonal projection methods”, *SIAM Journal on Scientific Computing* **30**: 473–504, (2008).

100. Y. Censor, S. Reich and A.J. Zaslavski, “General algorithmic frameworks for online problems”, *International Journal of Pure and Applied Mathematics* **46**: 19–36, (2008).
101. D. Butnariu, Y. Censor, P. Gurfil and E. Hadar, “On the behavior of subgradient projections methods for convex feasibility problems in Euclidean spaces”, *SIAM Journal on Optimization* **19**: 786–807, (2008).
102. Y. Censor and A. Segal, “Iterative projection methods in biomedical inverse problems”, in: Y. Censor, M. Jiang and A.K. Louis (Editors), *Mathematical Methods in Biomedical Imaging and Intensity-Modulated Radiation Therapy (IMRT)*, Edizioni della Normale, Pisa, Italy, 2008, pp. 65–96.
103. W. Chen, G.T. Herman and Y. Censor, “Algorithms for satisfying dose-volume constraints in intensity-modulated radiation therapy”, in: Y. Censor, M. Jiang and A.K. Louis (Editors), *Mathematical Methods in Biomedical Imaging and Intensity-Modulated Radiation Therapy (IMRT)*, Edizioni della Normale, Pisa, Italy, 2008, pp. 97–106.
104. Y. Censor and A. Gibali, “Projections onto super-half-spaces for monotone variational inequality problems in finite-dimensional spaces”, *Journal of Nonlinear and Convex Analysis* **9**: 461–475, (2008).  
**2009**
105. Y. Censor and A. Segal, “On the string averaging method for sparse common fixed points problems”, *International Transactions in Operational Research*, **16**: 481–494, (2009).
106. Y. Censor and A. Segal, “The split common fixed point problem for directed operators”, *Journal of Convex Analysis* **16**: 587–600, (2009).
107. R. Davidi, G.T. Herman, and Y. Censor, “Perturbation-resilient block-iterative projection methods with application to image reconstruction from projections”, *International Transactions in Operational Research* **16**: 505–524, (2009).
108. S.N. Penfold, R.W. Schulte, Y. Censor, V. Bashkirov, S. McAllister, K.E. Schubert and A.B. Rosenfeld, “Block-iterative and string-averaging projection algorithms in proton computed tomography image reconstruction”, in: Y. Censor, M. Jiang and G. Wang (Editors), *Biomedical Mathematics: Promising Directions in Imaging, Therapy Planning and Inverse Problems*, Medical Physics Publishing, Madison, WI, USA, 2009, accepted for publication.
109. Y. Censor, G.T. Herman and M. Jiang, “A note on the behavior of the randomized Kaczmarz algorithm of Strohmer and Vershynin”, *Journal of Fourier Analysis and Applications* **15**: 431–436, (2009).
110. A. Segal and Y. Censor, “Seminorm-induced oblique projections for sparse nonlinear convex feasibility problems”, in: Y. Censor, M. Jiang and G. Wang (Editors), *Biomedical Mathematics: Promising Directions in Imaging, Therapy Planning and Inverse Problems*, Medical Physics Publishing, Madison, WI, USA, 2009, accepted for publication.
111. S.N. Penfold, R.W. Schulte, Y. Censor, V. Bashkirov, and A.B. Rosenfeld, “Characteristics of proton CT images reconstructed with filtered backprojection and iterative projection algorithms”, in: *Conference Record of The 2009 IEEE Nuclear Science Symposium and Medical Imaging Conference (2009 IEEE-NSS-MIC)*, October 25-31, 2009, Orlando, Florida, USA, to appear.

**2010**

112. Y. Censor and A. Segal, "Sparse string-averaging and split common fixed points", *Contemporary Mathematics*, accepted for publication.

### 3 Abstracts, Book Reviews and other publications

#### 1986

1. Y. Censor, "On linearly constrained entropy maximization", (**Synopsis**), *Linear algebra and Its Applications* **80**: 191–195, (1986).
2. M.D. Altschuler, Y. Censor, W.D. Powlis, A.R. Smith and R.E. Wallace, "Selecting beams and beam weights for 3-D treatment planning", (**Abstract**), *Medical Physics* **13**: 590, (1986).
3. A. Berman, Y. Censor and H. Schneider (Editors), "Haifa 1985 Conference on Matrix Theory", *Linear Algebra and Its Applications* **80**: 173–260, (1986).

#### 1988

4. Y. Censor, "Linear algebra in image reconstruction from projections", *SIAM News* **21** (# 4, July 1988), pp. 14–15.

#### 1990

5. Y. Censor, T. Elfving and G.T. Herman, "Linear algebra in image reconstruction from projections: Preface", *Linear Algebra and Its Applications* **130**: 1–2, (1990).

#### 1992

6. Y. Censor and S.A. Zenios, "On the proximal minimization algorithm with D-functions", (**Synopsis**), *Linear Algebra and Its Applications* **167**: 212–216, (1992).
7. S.A. Zenios and Y. Censor, "On massively parallel row-action algorithms for some nonlinear transportation problems", (**Synopsis**), *Linear Algebra and Its Applications* **167**: 267–272, (1992).

#### 1999

8. Y. Censor, "Geometric insight helps: A guided tour of projection methods for finding a common point of a family of closed convex sets", (**Abstract**), *Journal of Geometry* **65**: 7, (1999).

#### 2001

9. J.M. Galvin, Y. Xiao, D. Michalski, Y. Censor, C. Houser, G. Bednarz and S. Huq, "Segmental inverse planning (SIP) that starts with a definition of allowable fields", (**Abstract**), *Medical Physics* **28**: 1253, (2001).
10. Y. Xiao, Y. Censor, D. Michalski and J. Galvin, "An IMRT optimization approach that minimizes the total MLC segments", (**Abstract**), *Medical Physics* **28**: 1262, (2001).
11. D. Michalski, Y. Xiao, Y. Censor, J. Galvin, G. Bednarz, "Improvement of the conventional treatment plan via automation of the process", (**Abstract**), *Medical Physics* **28**: 1196–1197, (2001).

12. C.O.S. Sorzano, J.J. Fernández, R. Marabini, G.T. Herman, Y. Censor and J.M. Carazo, “Transfer function restoration in 3D electron microscopy via iterative data refinement”, (**Extended abstract**), *Proceedings of The Sixth International Meeting on Fully Three-Dimensional Image Reconstruction in Radiology and Nuclear Medicine*, November 2001, Pacific Grove, CA, USA, pp. 133–136.
13. J.M. Galvin, Y. Xiao, D. Michalski, Y. Censor, C. Hauser, G. Bednarz, P.R. Anne, S. Huq, and W.J. Curran, “Treating oropharyngeal cancer with an inverse planning method that starts from the definition of field segments”, (**Abstract**), *International Journal Radiation Oncology Biology Physics* **51**: Supplement 1, 76–77, (2001).

#### 2002

14. Y. Censor, **Book Review** on: *The Mathematics of Computerized Tomography* (Classics in Applied Mathematics, Vol. 32, Philadelphia, PA, USA: SIAM 2001), by Frank Natterer, *Inverse Problems* **18**: 283–284, (2002).
15. Y. Xiao, Y. Censor, T. Zhu, M. Altschuler, S. Wu and J. Galvin, “Comparison of two optimization algorithms for the position, length, time duration and source strength of linear optical fibers for interstitial photodynamic therapy”, (**Abstract**), *Medical Physics* **29**: 1233, (2002).
16. Y. Xiao, Y. Censor, D. Michalski and J. Galvin, “Intrinsic smooth intensity pattern for beamlet-based IMRT inverse planning from a simultaneous projection algorithm”, (**Abstract**), *Medical Physics* **29**: 1254–1255, (2002).
17. Y. Censor, “A University Is not A Business”, Guest Article (in Hebrew), *Haaretz Daily Newspaper*, Tel-Aviv, Israel, December 17, 2002.

#### 2003

18. D. Michalski, Y. Xiao, Y. Censor and J.M. Galvin, “The dose-volume constraint satisfaction problem for inverse treatment planning with simultaneous subgradient projection method”, (**Abstract**), *Medical Physics* **30**: 1334, (2003).
19. Y. Xiao, D. Michalski, Y. Censor and J. Galvin, “Smoothness evaluation of intensity pattern resulting from simultaneous subgradient projection method for dose-volume objective satisfaction”, (**Abstract**), *Medical Physics* **30**: 1488, (2003).
20. Y. Censor, “The End of An Excellent Education System”, Guest Article (in Hebrew), *Haaretz Daily Newspaper*, Tel-Aviv, Israel, October 15, 2003.

#### 2004

21. Y. Xiao, D. Michalski, Y. Censor and J.M. Galvin, “Evaluation of simultaneous non-linear/linear feasibility algorithms for beamlet-based inverse optimization”, (**Abstract**), *Medical Physics* **31**: 1776–1777, (2004).
22. Y. Censor, “In the Absence of Academic Independence”, Guest Article (in Hebrew), *Haaretz Daily Newspaper*, Tel-Aviv, Israel, July 6, 2004.

#### 2005

23. Y. Censor, “How is A Nobel Prize Created”, Guest Article (in Hebrew), *Haaretz Daily Newspaper*, Tel-Aviv, Israel, on March 23, 2005.

24. Y. Censor, “The tiger fable, or ‘send your bread over the water’”, (in Hebrew) *Panim, Quarterly for Society, Culture and Education*, Published by the Israel Teachers Union (ITU), Tel-Aviv, Israel, Issue No. 34, December 2005, pp. 21–29, in Hebrew.
25. Y. Censor and I. Gur-ze’ev, “The struggle of the academic community for the future of Israeli academia: Alternative assessments of the activity of the Inter-Senate Committee of the Universities for the Protection of Academic Independence”, (in Hebrew) in: Ilan Gur-Ze’ev (Editor), *The End of Israeli Academia?* Published by the Faculty of Education, University of Haifa, Haifa, Israel, 2005, pp. 92–109, in Hebrew.

#### 2006

26. Y. Xiao, E. Hadar, Y. Censor, A. Ben-Israel and J. Galvin, “A model for handling infeasibility arising from IMRT inverse planning”, 48th American Association of Physicists in Medicine (AAPM) Annual Meeting, July 30 – August 3, 2006, Orlando, Florida, USA.  
(<http://www.aapm.org/meetings/06AM/prabs.asp?mid=26&aid=4768>).

#### 2007

27. Y. Censor, “The Crisis in the Higher Education System: On the Sins of the Committee of University Presidents”, a guest article (in Hebrew) published in the *Israel Today (Israel Hayom) Newspaper*, Tel-Aviv, Israel, on November 20, 2007, vol. 1, issue number 76, p. 15.
28. Y. Censor, “The Annihilation of the Academia”, Guest Article (in Hebrew), *Haaretz Daily Newspaper*, Tel-Aviv, Israel, Wednesday, December 5, 2007.

## 4 Technical reports

The following articles received limited circulation as preprints. Some of them were subsequently cited by other researchers in journal publications:

1. Y. Censor, “The Jacobian matrix and global homeomorphism of mappings”, *Technion Preprint Series* No. MT-156, The Technion–IIT, Haifa, Israel, May 1973.
2. Y. Censor and T. Elfving, “A nonlinear Cimmino algorithm”, *Technical Report* MIPG 60, Medical Image Processing Group, Department of Radiology, University of Pennsylvania, Philadelphia, PA, USA, August 1981.
3. Y. Censor and A. Lent, “Cyclic subgradient projections”, *Technical Report, Mathematics Publication Series # 35*, Department of Mathematics and Computer Science, University of Haifa, Israel, September 1981.
4. Y. Censor, T. Elfving and G.T. Herman, “Regularized least-squares solution of linear inequalities”, *Technical Report* MIPG 97, Medical Image Processing Group, Department of Radiology, University of Pennsylvania, Philadelphia, PA, USA, February 1985.
5. Y. Censor, A.R. De Pierro and A.N. Iusem, “On maximization of entropies and a generalization of Bregman’s method for convex programming”, *Technical Report* MIPG 113, Medical Image Processing Group, Department of Radiology, University of Pennsylvania, Philadelphia, PA, USA, October 1986.

6. D. Butnariu and Y. Censor, "Projections based bargaining schemes for points in the core or cooperative N-person games", *Technical Report, Mathematics Publication Series, Series 2, # 27*, Department of Mathematics and Computer Science, University of Haifa, Israel, March 1989.
7. Y. Censor and S.A. Zenios, "Fixed point characterization and iterative solutions of variational inequalities via Bregman projections", *Technical Report 92-03-06*, Decision Sciences Department, The Wharton School, University of Pennsylvania, Philadelphia, PA, USA, May 1992.
8. C. Byrne and Y. Censor, "Proximity function minimization for separable, jointly convex Bregman distances, with applications", *Technical Report*, February 1998.
9. J.M. Galvin, Y. Xiao, D. Michalski, Y. Censor, C. Houser, Y. Chen, G. Bednarz, P.R. Anni, M.S. Huq and W.J. Curran, Jr., "Treating Oropharyngeal cancer with an aperture-based inverse planning method", *Technical Report*, October 2001.
10. J.M. Galvin, Y. Xiao, Y. Chen, G. Bednarz, D. Michalski, Y. Censor, C. Houser, M. Hossain and M.S. Huq, "The optimization of inverse planning and IMRT", *Technical Report*, 12pp., presented at the 44th AAPM (American Association of Physicists in Medicine) Annual Meeting, Montreal, Canada, July 14-18, 2002. Available at: <http://www.aapm.org/meetings/02AM/pdf/8323-10639.pdf>