

Publications

Book:

- [1] L. Onural *3D Video Technologies: An Overview of Research Trends*, 93 Pages, Bellingham, Washington, USA, SPIE Press, ISBN 9780819480972, 2011.

Edited Book:

- [2] H. M. Ozaktas, L. Onural, Eds. *Three-Dimensional Television - Capture, Transmission, Display*, 629 pages, Springer, ISBN 978-3-540-72531-2, 2008.

Journals:

- [3] L. Onural and P. D. Scott, "Digital Decoding of In-line Holograms for Imaging Fractal Aggregates", *Electronics Letters*, vol 22, No 21, pp. 1118-1119, 9 October 1986.
- [4] L. Onural and P. D. Scott, "Digital Decoding of In-line Holograms", *Optical Engineering*, vol 26, no 11, pp. 1124-1132, November 1987.
- [5] M. Karaman and L. Onural, "New Radix-2 Based Algorithm for Fast Median Filtering", *Electronics Letters*, vol 25, no 11, pp. 723-724, 25 May 1989.
- [6] M. Karaman, L. Onural and A. Atalar, "Design and Implementation of a General Purpose Median Filter Unit in CMOS VLSI", *IEEE J. of Solid State Circuits*, vol 25, no 2, pp. 505-513, April 1990.
- [7] L. Onural and P. D. Scott, "Digital Decoding of In-line Holograms", in *SPIE Milestone Series 21, Selected Papers on Holographic Particle Diagnostics* Editor: C. S. Vikram, pp. 264-272, Optical Engineering Press, Nov 1990. (Reprint of item [3])
- [8] E. Atalar, L. Onural, "A Respiratory Motion Artifact Reduction Method in Magnetic Resonance Imaging of the Chest", *IEEE Trans. on Medical Imaging*, vol 10, no 1, pp. 11-24, March 1991.
- [9] L. Onural, "Generating Connected Textured Fractal Patterns Using Markov Random Fields" *IEEE Trans. on PAMI* vol 13, no 8, pp. 819-825, August 1991.
- [10] L. Onural, M. T. Özgen, "Extraction of 3-D Object Location Information Directly from In-line Holograms Using Wigner Analysis", *Journal of the Optical Society of America A*, vol 9, no 2, pp. 252-260, February 1992.

- [11] L. Onural, "Diffraction From a Wavelet Point of View", *Optics Letters*, vol 18, no 11, pp. 846-848, June 1, 1993.
- [12] H. M. Ozaktas, B. Barshan, D. Mendlovic and L. Onural, "Convolution, Filtering, and Multiplexing in Fractional Fourier Domains and Their Relation to Chirp and Wavelet Transforms", *Journal of the Optical Society of America A*, vol 11, no 2, pp. 547 - 559, February 1994.
- [13] L. Onural, G. Bozdağı and A. Atalar, "New High-resolution Display Device for Holographic 3-D Video: Principles and Simulations", *Optical Engineering*, vol 33, no 3, pp. 835 - 844, March 1994.
- [14] L. Onural, "Diffraction From a Wavelet Point of View- Reply", *Optics Letters*, vol 19, no 6, p. 424, March 1994.
- [15] M. İ. Gürelli and L. Onural, "On a Parameter Estimation Method for Gibbs-Markov Random Fields" *IEEE Trans. on PAMI*, vol 16, no 4, pp. 424 - 430, April 1994.
- [16] G. Bozdağı, A. M. Tekalp and L. Onural, "3-D Motion Estimation and Wireframe Adaptation Including Photometric Effects for Model-Based Coding of Facial Image Sequences", *IEEE Trans. on Circuits and Systems for Video Technology*, vol 4, no 3, pp. 246 - 256, June 1994. (Among the most cited CSVT papers in 2006 since 1990.)
- [17] L. Onural and M. B. Alp, M. İ. Gürelli, "Gibbs Random Field Model Based Weight Selection for the 2-D Adaptive Weighted Median Filter", *IEEE Trans. on PAMI*, vol 16, no 8, pp. 831 - 837, August 1994.
- [18] G. Bozdağı, A. M. Tekalp and L. Onural, "An Improvement to MBASIC Algorithm for 3-D Motion and Depth Estimation", *IEEE Trans. on Image Processing*, vol 3, no 5, pp. 711 - 716, September 1994.
- [19] L. Onural and M. Kocatepe, "Family of Scaling Chirp Functions, Diffraction, and Holography", *IEEE Trans. on Signal Processing*, vol 43, no 7, pp. 1568-78, July 1995.
- [20] M. İ Gürelli and L. Onural, "A Class of Adaptive Directional Image Smoothing Filters" *Pattern Recognition*, vol 29, no 12, pp.1995-2004, December 1996.
- [21] M. A. Kutay, H. M. Ozaktas, O. Arikan and L. Onural, "Optimal Filtering in Fractional Domains" *IEEE Trans. on Signal Processing*, vol 45, no 5, pp. 1129-1143, May 1997.

- [22] L. Onural, M. F. Erden and H. M. Ozaktas, "Extensions to common Laplace and Fourier Transforms" *IEEE Signal Processing Letters*, vol 4, No 11, pp. 310-311, Nov 1997.
- [23] L. Onural and P. D. Scott, "Digital Decoding of In-line Holograms", in *SPIE Milestone Series 144, Selected Papers on Holographic Interferometry: Principles and Techniques*, Editors: R. S. Sihori and K. D. Hinsch, pp. 647-655, Optical Engineering Press, 1998. (Reprint of item [3])
- [24] A. Alatan and L. Onural "3-D Motion Estimation of Rigid Objects for Video Coding Applications Using an Improved Iterative Version of the E-matrix Method" *IEEE Signal Processing Letters*, Vol 5, no 2, pp. 36 - 38, February 1998.
- [25] A. A. Alatan and L. Onural, "Estimation of Depth Fields Suitable for Video Compression using 3-D Structure and Motion of Objects" *IEEE Trans. on Image Processing*, vol 7, no 6, pp. 904 - 908, June 1998.
- [26] A. Alatan, L. Onural, M. Wollborn, R. Mech, E. Tuncel and T. Sikora "Image Sequence Analysis for Emerging Interactive Multimedia Services - The European COST 211 Framework" (Invited Paper) *IEEE Trans. on Circuits and Systems for Video Technology*, Vol 8, No 7, pp. 802-813, November 1998. (Among the most cited CSVT papers in 2006 since 1990.)
- [27] E. Tuncel and L. Onural, "Utilization of the Recursive Shortest Spanning Tree Algorithm for Video Object Segmentation by 2-D Affine Motion Modelling" *IEEE Trans. on Circuits and Systems for Video Technology*, Vol 10, No 5, pp 776-781, August 2000.
- [28] L. Onural, "Sampling of the Diffraction Field" *Applied Optics*, Vol 39, No 32, pp 5929-5935, November 2000.
- [29] İ. Ş. Yetik, H. M. Ozaktas, B. Barshan and L. Onural, "Perspective Projections in the Space-frequency Plane and Fractional Fourier Transforms", *J. Optical Society of America A (JOSA A)*, Vol 17, No 12, pp 2382, December 2000.
- [30] L. Onural, "Some Mathematical Properties of the Uniformly Sampled Quadratic Phase Function and Associated Issues in Digital Fresnel Diffraction Simulation", *Optical Engineering*, vol 43, no 11, pp 2557-2563, November 2004.
- [31] L. Onural, "Impulse Functions over Curves and Surfaces and Their Applications to Diffraction" *J. Math. Anal. Appl.*, vol 322, pp 18-27, October 2006.
- [32] V. K. Sainov, Z. I. Kharizanova, E. V. Stoikova, K. M. Ozaktas, and L. Onural, "Technique for reconstructing a Surface Shape for Measuring Coordinates," *J.*

Opt. Technol., vol 73, pp 466-470, July 2006. (translation from the Russian original, *Opticheskii Zhurnal* 73, 49-54, July 2006.)

- [33] V.Kh. Sainov, Zh.I. Kharizanova, E.V. Stoikova, Kh.M. Ozaktas and L. Onural, "Technique for Reconsturacting a Surface Shape for Measuring Coordinates," *Opticheskii Zhurnal* 73, 49-54, July 2006 (In Russian).
- [34] L. Onural, "Projection-Slice Theorem as a Tool for Mathematical Representation of Diffraction", *IEEE Signal Processing Letters*, vol 14, no 1, pp 43-46, January 2007.
- [35] L. Onural, "Exact Analysis of the Effects of Sampling of the Scalar Diffraction Field", *J. Optical Soc. of America A*, vol 24, no 2, pp 359-367, February 2007.
- [36] L. Onural and H. M. Ozaktas, "Signal Processing Issues in Diffraction and Holographic 3DTV", *Signal Processing: Image Communication*, vol 22, no 2, pp 169-177, February 2007.
- [37] G. B. Esmer, V. Uzunov, L. Onural, H. M. Ozaktas and A. Gotchev, "Diffraction Field Computation from Arbitrarily Distributed Data Points in Space", *Signal Processing: Image Communication*, vol 22, no 2, pp 178-187, February 2007.
- [38] L. Onural, "Television in 3-D: What Are the Prospects?", *Proceedings of the IEEE*, vol 95, no 6, pp 1143-1145, June 2007.
- [39] L. Onural and T. Sikora, "Introduction to the Special Section on 3DTV ", *IEEE Tr. on Circuits and Systems on Video Technology*, vol 17, no 11, pp 1566-1567, November 2007.
- [40] L. Onural, A. Gotchev, H. M. Ozaktas and E. Stoykova, "A Survey of Signal Processing Problems and Tools in Holographic Three-Dimensional Television", (Invited Paper) *IEEE Tr. on Circuits and Systems on Video Technology*, vol 17, no 11, pp 1631-1646, November 2007.
- [41] M. Janda, I. Hanak and L. Onural, "Hologram Synthesis for Photorealistic Reconstruction", *J. Optical Soc. of America A*, vol 25, no 12, pp 3083-3096, December 2008.
- [42] G. A. Triantafyllidis, A. E. Çetin, A. Smolic, L. Onural, T. Sikora, and J. Watson "3DTV: Capture, Transmission, and Display of 3D Video", *J. on Advances in Signal Processing*, vol 2009, Article ID 585216, 2 pages, 2009.
- [43] F. Yaraş, H. Kang and L. Onural, "Real-Time Phase-Only Color Holographic Display System Using LED Illumination", *Applied Optics*, vol 48, no 34, pp H48-H53, December 2009.

- [44] H. Kang, F. Yaraş and L. Onural, "Graphics Processing Unit Accelerated Computation of Digital Holograms" *Applied Optics*, vol 48, no 34, pp H137-H143, December 2009.
- [45] K. Köse, A. E. Çetin, U. Güdükbay, L. Onural, "3D Model Compression Using Connectivity-Guided Adaptive Wavelet Transform Built Into 2D SPIHT", *J. Visual Communication and Image Representation*, vol 21, no 1, pp 17-28, January 2010.
- [46] E. Sahin and L. Onural, "A Comparative Study of Light Field Representation and Integral Imaging", *The Imaging Science Journal*, vol 58, no 1, pp 28-31, Feb 2010.
- [47] R.W. Boyd, R. Athale, L. Onural and W. Seka, "Lasers: The First Fifty Years", (Editorial), *Applied Optics*, vol 49, no 25, pp LF1, 1 September 2010.
- [48] L. Onural, "Signal Processing and 3DTV", *IEEE Signal Processing Magazine*, vol 27, No 5, pp 144-142, Sep 2010.
- [49] F. Yaraş, H. Kang and L. Onural, "State of the Art in Holographic Displays", *Journal of Display Technology*, vol 6, no 10, pp 443-454, Oct 2010.
- [50] L. Onural, "Exact Solution for Scalar Diffraction Between Tilted and Translated Planes Using Impulse Functions over a Surface", *JOSA A*, vol 28, no 3, pp 290-295, Mar 2011.
- [51] A. M. Tekalp, A. Smolic, A. Vetro, L. Onural, "Special Issue on 3-D Media and Displays", *Proc. of the IEEE*, vol 99, no 4, pp 536-539, Apr 2011.
- [52] L. Onural, F. Yaraş and H. Kang, "Digital Holographic Three-Dimensional Video Displays", *Proc. of the IEEE*, vol 99, no 4, pp 576-589, Apr 2011.
- [53] F. Yaraş, H. Kang and L. Onural, "Circular Holographic Video Display System", *Optics Express*, vol 19, no 10, pp 9147-9156, May 2011.
- [54] E. Ulusoy, L. Onural, and H. M. Ozaktas, "Synthesis of Three-dimensional Light Fields with Binary Spatial Light Modulators", *JOSA A*, vol 28, no 6, pp 1211-1223, Jun 2011.
- [55] E. Ulusoy, L. Onural, and H. M. Ozaktas, "Full-complex Amplitude Modulation with Binary Spatial Light Modulators", *JOSA A*, vol 28, no 11, pp 2310-2321, Nov 2011.
- [56] A. Ö. Yöntem and L. Onural, "Integral Imaging Using Phase-only LCoS Spatial Light Modulators as Fresnel Lenslet Arrays" *JOSA A*, vol 28, no 11, pp 2359-2375, Nov 2011.

- [57] G. B. Esmer, L. Onural and H. M. Ozaktas, "Exact Diffraction Calculation from Fields Specified over Arbitrary Curved Surfaces", *Optics Commun.*, vol 284, no 24, pp 5537-5548, Dec 2011.
- [58] E. Şahin and L. Onural, "Scalar Diffraction Field Calculation from Curved Surfaces via Gaussian Beam Decomposition", *JOSA A*, vol 29, no 7, pp 1459-1469, Jul 2012.
- [59] E. Stoykova, F. Yaraş, H. Kang, L. Onural, A. Geltrude, M. Locatelli, M. Paturzo, A. Pelagotti, R. Meucci, and P. Ferraro, "Visible Reconstruction by a Circular Holographic Display from Digital Holograms Recorded under Infrared Illumination", *Optics Letters*, vol 37, no 15, pp 3120-3122, Aug 2012.
- [60] A. A. Alatan, J. Ostermann, L. Onural, G. AlRegib, S. Mattoccia and C. Yuan, "Introduction to the Issue on Emerging Techniques in 3-D", *IEEE J. of Selected Topics in Signal Processing*, vol 6, no 5, pp 409, Sep 2012.
- [61] A. Özgür Yöntem and L. Onural, "Integral Imaging Based 3D Display of Holographic Data", *Optics Express*, vol 20, no 22, pp 24175-24195, Oct 2012.
- [62] E. Şahin and L. Onural, "Calculation of the Scalar Diffraction Field from Curved Surfaces by Decomposing the Three-dimensional Field into a Sum of Gaussian Beams", *JOSA A*, vol 30, no 3, pp 527-536, Mar 2013.

Book Chapters:

- [63] M. Karaman, L. Onural, A. Atalar, "Design and Implementation of a General Purpose Median Filter in VLSI", in *VLSI Signal Processing, III*, (Eds: R. W. Brodersen, H. S. Moscovitz), Chapter 11, pp. 111-119, November 1988.
- [64] A. A. Alatan and L. Onural, "Gibbs Random Model Based 3D Motion and Structure Estimation for Object-based Video Coding Applications", in *Video Data Compression for Multimedia Computing - Statistically Based and Biologically Inspired Techniques*, (Eds: H. H. Li, S. Sun, H. Derin), Chapter 10, pp. 355-387, Kluwer Academic Publishers, 1997.
- [65] L. Onural and H. M. Ozaktas, "Three-dimensional Television: From Science-fiction to Reality" in *Three-dimensional Television: Capture, Transmission and Display*, (Eds: H. M. Ozaktas and L. Onural), Chapter 1, pp 1-9, Heidelberg: Springer, 2008
- [66] M. Kovachev, R. Ilieva, P. Benzie, G. B. Esmer, L. Onural, J. Watson, T. Reyhan, "Holographic 3DTV Displays Using Spatial Light Modulators", in *Three-Dimensional Television - Capture, Transmission, Display*, (Eds: H. M. Ozaktas, L. Onural), Chapter 15, pp. 529-555, Springer, 2008.

Conference Proceedings:

- [67] L. Onural and A. Atalar, "Design and Implementation of a Microprocessor Based Discrete Fourier Transform Processor Using Winograd's Fourier Transform Algorithm", *Proc. of the Seventeenth Annual Conference on Information Sciences and Systems*, pp. 742, Baltimore, MD, March 1983.
- [68] L. Onural, P. D. Scott and D. T. Shaw, "Digital Algorithm Extracting Objects From Their In-line Holograms Incorporating Twin-Image Elimination", *Optical Society of America 1984 Annual Meeting*, October 1984.
- [69] L. Onural and P. D. Scott, "Reconstruction of 2-D Signals from Their In-line Holograms by Approximate Inverse Filtering", *Proc. Twenty-second Annual Allerton Conference on Communication, Control, and Computing*, pp. 794-795, Monticello, Illinois, October 1984.
- [70] L. Onural and P. D. Scott, "A Digital Filtering System for Decoding In-line Holograms", *Proc. 1985 IEEE International Conference on Acoustics, Speech and Signal Processing*, pp. 708-711, Florida, March 1985.
- [71] L. Onural, "Conditional Markov Random Fields Applied to Textured Fractal Pattern Generation", *The First International Conference on Statistical Computing*, pp. 666, İzmir, Turkey, 30 March - 2 April 1987.
- [72] L. Onural, "Markov Rasgele Alan Modellerine Yerel Olmayan Kısıtlamaların Katılması: Koşullu Markov Rasgele Alanları", *Elektrik Mühendisliği 2. Ulusal Kongresi*, sayfa 74-77, Ankara, Turkey, Eylül 1987. (In Turkish)
- [73] L. Onural ve P. D. Scott, "Tek-Işınlı Hologramların Sayısal Çözümü", *Elektrik Mühendisliği 2. Ulusal Kongresi*, sayfa 78-81, Ankara, Turkey, Eylül 1987. (In Turkish)
- [74] L. Onural ve P. D. Scott, "Tek-Işınlı Holografi İçin İki-Boyutlu Sistem Modelleri ve İlgili Sayısal Benzetimler", *Elektrik Mühendisliği 2. Ulusal Kongresi*, sayfa 82-85, Ankara, Turkey, Eylül 1987. (In Turkish)
- [75] L. Onural, "Aerosol Yığınları İçin Doku Yapısı Belirlenebilen Bir Fraktal Modeli", *Elektrik Mühendisliği 2. Ulusal Kongresi*, sayfa 93-96, Ankara, Turkey, Eylül 1987. (In Turkish)
- [76] L. Onural, "Conditional Markov Random Fields and Their Application to Pattern Generation Problems", *Fifth International Symposium on Data Analysis and Informatics*, vol. Poster (Ed. INRIA), pp. 87 - 90, Versailles, France, September 29 - October 2, 1987.

- [77] L. Onural, "A Systematic Procedure to Generate Connected Binary Fractal Patterns with Resolution Varying Texture", *Second International Symposium on Computer and Information Sciences*, (Ed. Erol Gelenbe and Ali Rıza Kaylan) pp. 551- 558, İstanbul, Turkey, October 1987.
- [78] L. Onural, "Vector Gibbs Random Fields and Colored Textures", *The Third International Symposium on Computer and Information Sciences*, **Invited Paper**, (Ed. E. Gelenbe, E. Orhun and E. Başar), pp. 455-462, İzmir, Turkey, November 1988.
- [79] M. Karaman, L. Onural, A. Atalar, "Design and Implementation of a General Purpose Median Filter in VLSI", *The Third International Symposium on Computer and Information Sciences*, (Ed. E. Gelenbe, E. Orhun and E. Başar), pp. 783-790 İzmir, Turkey, November 1988.
- [80] S. H. Oğuz, L. Onural, "Morphological Transform Techniques for the "Visual Rule Based Inspection of Printed Circuit Boards", *The Third International Symposium on Computer and Information Sciences*, (Ed. E. Gelenbe, E. Orhun and E. Başar), pp. 512-515 İzmir, Turkey, November 1988.
- [81] E. Atalar, L. Onural, "Yeni Bir Hızlı Manyetik Çınlanım Görüntüleme Yöntemi: Çift Açılı Kalıcı Durum" *ODTÜ EEMB 30. Yıl Sempozyumu*, pp. 32-35, Ankara, Turkey, February 1989. (In Turkish)
- [82] M. Karaman, L. Onural, A. Atalar, "Genel Amaçlı Bir Ortanca Süzgeci Biriminin VLSI Tasarımı ve Gerçekleştirilmesi", *ODTÜ EEMB 30. Yıl Sempozyumu*, pp. 36-39, Ankara, Turkey, February 1989. (In Turkish)
- [83] S. H. Oğuz, L. Onural, "Baskılı Devre Kartlarının Kurala Dayalı Morfolojik Transformasyon Teknikleri Kullanılarak Görüntüsel Olarak İncelenmesi", *ODTÜ EEMB 30. Yıl Sempozyumu*, pp. 40-43, Ankara, Turkey, February 1989. (In Turkish)
- [84] M. Karaman, L. Onural, A. Atalar, "A General Purpose VLSI Median Filter and Its Applications For Image Processing", *Proceedings of MELECON'89*, pp. 366 - 369, Lisbon, Portugal, April 1989.
- [85] M. İ. Gürelli, L. Onural, "Estimation of Markov Random Field Parameters by Neural Networks", *The Sixth International Symposium on Network, Systems and Signal Processing*, pp. 170-173, Zagreb, Yugoslavia, June 1989.
- [86] S. H. Oğuz, L. Onural, "A visual Rule-Based Printed Circuit Board Inspection System Using Mathematical Morphologic Operations", *The Sixth International Symposium on Network, Systems and Signal Processing*, pp. 220-223, Zagreb Yugoslavia, June 1989.

- [87] L. Onural, "Color Texture Analysis and Synthesis Using Gibbs Random Fields", *SPIE Proceedings: Advances in Image Compression and Automatic Target Recognition*, vol. 1099, pp. 250 - 258, Orlando, Florida, USA, March 1989.
- [88] M. Karaman, L. Onural, A. Atalar, "Design and Implementation of a General Purpose VLSI Median Filter Unit and its Applications", *Int. Conf. on Acoustics, Speech and Signal Processing, ICASSP'89*, vol 4, pp. 2548-2551, Glasgow, May 1989.
- [89] L. Onural, "Color Texture Analysis and Synthesis Using Gibbs Random Fields", *Symposium Digest of Eighth Kobe International Symposium on Electronics and Information Sciences, Invited Paper*, pp. 14-1 - 14-10, Kobe, Japan, July 1989. (The same as [87]).
- [90] S. K. Mitra, M. R. Petraglia and L. Onural, "Median Filtering by a Generalized Threshold Decomposition", *1989 European Conference on Circuit Theory and Design*, pp. 349-353, Brighton, UK, September 1989.
- [91] S. H. Oğuz, L. Onural, "Matematiksel Morfoloji Teknikleri Kullanan Bir Otomatik Görüntüsel İnceleme Sistemi", *Elektrik Mühendisliği 3. Ulusal Kongresi*, pp. 457-460, İstanbul, Turkey, September 1989. (In Turkish)
- [92] G. Bozdağı, L. Onural, "Görüntü İşleyicisi ile Holografi Simülasyonu", *Elektrik Mühendisliği 3. Ulusal Kongresi*, pp. 598-601, İstanbul, Turkey, September 1989. (In Turkish)
- [93] E. Atalar and L. Onural, "An Iterative Image Reconstruction Method for Respiratory Artifact Reduction in MRI of Chest", *European Congress of NMR in Medicine and Biology*, p. 355, Strasbourg, May 1990.
- [94] M. İ. Güreli and L. Onural, "A Parallel Algorithm for the Generation of Markov Random Field Textures", *Proceedings of the 1990 Bilkent International Conference: Communication Control and Signal Processing*, Edited by Erdal Arıkan, pp. 1330 - 1336, Ankara, Turkey July 1990.
- [95] L. Onural, Mehmet İzzet Güreli, "Generation and Parameter Estimation of Markov Random Field Textures By Highly Parallel Networks" in *From Pixels to Features II*, (by invitation), pp. 105 - 120, ESPRIT BRA 3035 Workshop: Parallelism in Image Processing, France, August 1990.
- [96] E. Atalar and L. Onural, "A Method for Suppression of Motion Artifact due to Expansion/Shrinkage and Translation of the Body", *Journal of Magnetic Resonance Imaging* vol.1, number 2, p. 245, 1991.

- [97] S. H. Oğuz, L. Onural, "An Automated System for Design-Rule-Based Visual Inspection of Printed Circuit Boards" *IEEE 1991 International Conference on Robotics and Automation*, pp. 2696-2701, California USA, April 9-11, 1991.
- [98] B. Ö. Sarioğlu, L. Onural, "Kişisel Bilgisayar (PC) Monitörlerindeki Geometrik Doğrusallık Bozulmalarını Görüntü İşleme Yöntemleriyle Bulan Bir Sistemin Tasarımı ve Gerçekleştirilmesi", *1991 Bilkent Üniversitesi Elektrik Elektronik ve Bilgisayar Mühendisliği Konferansı*, p. 226-229, Temmuz 1991. (in Turkish).
- [99] G. Bozdağı, L. Onural, A. Atalar, "3-Boyutlu Holografik Televizyon Sistemleri: Yeni Bir Yaklaşım", *1991 Bilkent Üniversitesi Elektrik Elektronik ve Bilgisayar Mühendisliği Konferansı*, p. 230-233, Temmuz 1991. (in Turkish).
- [100] G. Bozdağı, L. Onural, A. Atalar, "Simulation of a New Holographic 3-Dimensional Television Display", *Computer and Information Sciences VI*, Vol II. (Editors: M. Baray and B. Özgüç), (Proceedings of the 1991 International Symposium on Computer and Information Sciences, Antalya, Turkey), Elsevier, pp. 963- 972, October 1991.
- [101] M. İ. Güreli, L. Onural, "The Adaptive Directional Median Filter", *Computer and Information Sciences VI*, Vol II. (Editors: M. Baray and B. Özgüç), (Proceedings of the 1991 International Symposium on Computer and Information Sciences, Antalya, Turkey), Elsevier, pp. 973-979, October 1991.
- [102] L. Onural, Gözde Bozdağı, A. Atalar, "A New Holographic 3-Dimensional Television Display", *IEEE 1991 Ultrasonics Symposium Proceedings*, pp. 543-546, Florida, USA, December 1991.
- [103] L. Onural, G. Bozdağı, A. Atalar, "A New Approach to Holographic Video Imaging: Principles and Simulations", *in Practical Holography VI*, Proceedings of SPIE Vol. 1667 (Editor: Stephen A. Benton), pp. 63-72, San Jose, California, USA, February 1992.
- [104] G. Bozdağı, L. Onural, A. Atalar, "A Novel Approach to 3-Dimensional Holographic Television Display: Principle and Simulations", *1992 IEEE International Conference on Acoustics, Speech and Signal Processing*, pp. III-117 - III-120, San Francisco, California, USA, March 1992.
- [105] L. Onural and M. B. Alp, "Weight Selection for the 2-D Adaptive Weighted Median Filter Based on the Gibbs Random Field Model", *1993 IEEE Winter Workshop on Nonlinear Digital Signal Processing*, pp. 5.1.1.1 - 5.1.1.6, Tampere, Finland, January 1993.

- [106] G. Bozdağı, A. M. Tekalp, L. Onural, "Görüntülü Telefon Amaçlı Modele Dayalı Kodlama Yöntemlerinde Üç Boyutlu Hareket ve Derinlik Bilgisinin Uyarlanı Kestirimi", 1. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 47-52, İstanbul, Nisan 1993, (In Turkish).
- [107] L. Onural, Ş. Ulukuş, A. E. Çetin, "Uyarlanı Öngörüye ve Vektör Basamaklandırılmaya Dayalı Çok Düşük Veri İletişim Hızlarında Çalışan Video Kodlayıcı/Kodçözücü Çifti ve İki Değişik Öngörü Yönteminin Başarımlarının Karşılaştırılması", 1. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 93-98, İstanbul, Nisan 1993, (In Turkish).
- [108] G. Bozdağı, and L. Onural, "Extraction of Facial Regions from Image Sequences for Video-Phone Applications", *Proceedings of Fourth International Conference on Advances in Communication & Control*, pp. 490-492, Rhodes, Greece, June 1993.
- [109] G. Bozdağı, A. M. Tekalp, and L. Onural, "3-D Motion and Structure Estimation including Photometric Effects with Application to Model-Based Coding of Facial Image Sequences", *Proceedings of the Eight Workshop on Image and Multidimensional Signal Processing*, pp. 114-115, Cannes, France, September 1993.
- [110] Ş. Ulukuş, L. Onural, A. E. Çetin, "VLBR Codec Based on Adaptive Nonlinear Predictor and VQ", *COST211ter European Workshop on New Techniques for Coding of Video Signals at Very Low Bitrates*, pp. 3.2.1 - 3.2.4, Hannover, Germany, December 1993.
- [111] G. Bozdağı, A. M. Tekalp, L. Onural, "Simultaneous Estimation of 3D Motion and Structure Parameters for Model-Based Image Coding", *COST211ter European Workshop on New Techniques for Coding of Video Signals at Very Low Bitrates*, pp. 4.4.1 - 4.4.4, Hannover, Germany, December 1993.
- [112] G. Bozdağı, A. M. Tekalp, L. Onural, "Modele Dayalı Kodlama Amaçlı Üç Boyutlu Devinim ve Yapı Kestirimi", 2. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 7-12, Gökova, Muğla, Nisan 1994, (In Turkish).
- [113] B. Erdoğan, L. Öktem, L. Onural, "Ayrık Kosinüs Dönüşümüyle Dikdörtgen Olmayan Alanların Kodlanması", 2. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 30-34, Gökova, Muğla, Nisan 1994, (In Turkish).
- [114] R. Mickos, L. Onural, "Bit Rate Control in Very Low Bit Rate Video Coders", 2. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 140-145, Gökova, Muğla, April 1994.

- [115] L. Öktem, L. Onural, "Kutupsal Kütle Dağılımına Dayalı Yeni Bir Kodlama Sistemi", 2. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 158-161, Gökova, Muğla, Nisan 1994, (In Turkish).
- [116] A. A. Alatan, L. Onural, "Üç Boyutlu Hareket Bilgisinin Kestiriminde Gibbs Formülasyonu", 2. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 167-172, Gökova, Muğla, Nisan 1994, (In Turkish).
- [117] L. Onural, M. Kocatepe, H. M. Özaktaş, "Dalga Yayılımı ile İlintili bir Dalgacık Çekirdeği Sınıfı", 2. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 333-338, Gökova, Muğla, Nisan 1994, (In Turkish).
- [118] H. M. Ozaktas, B. Barshan, L. Onural and D. Mendlovic, "Filtering in Fractional Fourier Domains and Their Relation to Chirp Transforms", *Proceedings of MELECON'94*, pp. 77-79, Antalya, Turkey, April 1994.
- [119] G. Bozdağı, A. M. Tekalp, L. Onural, "An Iterative Technique for 3-D Motion Estimation in Videophone Applications", *Proceedings of MELECON'94*, pp. 199-202, Antalya, Turkey, April 1994.
- [120] R. Mickos, L. Onural, "Simulation of A DCT Based Very Low Bit Rate Codec for Mobile Video Coding", *Proceedings of MELECON'94*, pp. 203-206, Antalya, Turkey, April 1994.
- [121] L. Öktem, L. Onural, "A Novel Hierarchical Coding Scheme Based on Polar Mass Distribution", *Proceedings of MELECON'94*, pp. 329-331, Antalya, Turkey, April 1994.
- [122] L. Onural, M. Kocatepe, H. M. Ozaktas, "A Class of Wavelet Kernels Associated with Wave Propagation", *Proceedings of 1994 International Conference on Acoustics, Speech and Signal Processing (ICASSP94)*, pp. III9-III12, Adelaide, Australia, April 1994.
- [123] G. Bozdağı, A. M. Tekalp, L. Onural, "Simultaneous 3-D Motion Estimation and Wire-frame Model Adaptation Including Photometric Effects for Knowledge-Based Video Coding", *Proceedings of 1994 International Conference on Acoustics, Speech and Signal Processing (ICASSP94)*, pp. V413-V416, Adelaide, Australia, April 1994.
- [124] A. A. Alatan, L. Onural, "Gibbs Random Field Model Based 3-D Motion Estimation from Video Sequences", *Proceedings of SPIE's Visual Communications and Image Processing Conference VCIP'94*, pp. 626 - 637, Chicago, USA, September 1994.

- [125] A. A. Alatan, P. E. Eren and L. Onural, "Entropy Coding of Spline Parameters for Region-Based Video Compression", *Proceedings of Workshop on Image Analysis and Synthesis in Image Coding*, October 1994, Berlin.
- [126] A. A. Alatan and L. Onural, "Gibbs Random Field Model Based 3-D Motion Estimation by Weakened Rigidity", *Proceedings of 1994 IEEE International Conference on Image Processing, ICIP'94*, pp. 790-794, Austin, TX, USA, November 1994
- [127] A. A. Alatan and L. Onural, "Gibbs Formülasyonu Kullanarak Sık Derinlik Tesbiti", *3. Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı A: Görüntü İşleme*, pp. 25-29, Kapadokya, Nevşehir (in Turkish), April 1995.
- [128] A. A. Alatan H. T. Bostancı, S. Kıranyaz, N. Çadallı, B. Erdoğan, P. Erhan Eren, M. Saraçlar and L. Onural, "Nesneye Dayalı Kodlama Uygulaması" *3. Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı A: Görüntü İşleme*, pp. 129-133, Kapadokya, Nevşehir (in Turkish), April 1995.
- [129] M. Alper Kutay, M. Haldun Özaktaş, and Levent Onural. Kesirli Fourier Bölgelerinde Eniyi Süzgeçleme. In *Sinyal İşleme ve Uygulamaları*, pages 114–119, Bebek, İstanbul, 1995. Boğaziçi University. Presente at the 3rd Conference on Signal Processing and Applications, April 26–28, 1995, Kapadokya, Nevşehir, Turkey, in Turkish.
- [130] M. Alper Kutay, M. Haldun Özaktaş, Levent Onural and O. Arıkan, Optimal filtering in fractional Fourier domains. In *Proceedings of the 1995 IEEE International Conference on Acoustics, Speech, and Signal Processing*, pp. 937 - 940 Piscataway, New Jersey, 1995. IEEE. Presented at the IEEE International Conference on Acoustics, Speech, and Signal Processing, May 9-12, 1995, Detroit, Michigan.
- [131] L. Onural, N. Herodotou and A. N. Venetsanopoulos, "Interpolation by Regeneration Using Gibbs Random Field Models", *1995 IEEE Workshop on Nonlinear Signal and Image Processing*, pp. 111-114, Halkidiki, Greece, June 1995.
- [132] A. A. Alatan and L. Onural, "Object Based 3-D Motion and Structure Estimation", *1995 IEEE International Conference on Image Processing, ICIP'95 vol I*, pp. 390-393, Washington DC, October 1995.
- [133] N. Herodotou, A. N. Venetsanopoulos, and L. Onural, "Image Interpolation Using a Simple Gibbs Random Field Model" *1995 IEEE International Conference on Image Processing, ICIP'95 vol I*, pp. 494-497, Washington DC, October 1995.

- [134] S. Kiranyaz, H. Tunç Bostancı and L. Onural, "Zaman, Boy ve Renkte İndirgeme Kullanarak Video Kodlama" 4. *Sinyal İşleme ve Uygulamaları, Kurultayı Bildiriler Kitabı*, pp. 294 - 297, Kemer, Antalya, Turkey, 5-6 April 1996. In Turkish.
- [135] A. A. Alatan and L. Onural, "Nesneye Dayalı Görüntü Sıkıştırma Uygulamaları için En İyi Derinlik Kodlaması", 4. *Sinyal İşleme ve Uygulamaları, Kurultayı Bildiriler Kitabı*, pp. 298 - 301, Kemer, Antalya, Turkey, 5-6 April 1996. In Turkish.
- [136] A. A. Alatan and L. Onural, "Joint Estimation and Optimum Encoding of Depth Field for 3-D Object-based Video Coding" *1996 IEEE International Conference on Image Processing, ICIP'96* vol II, pp. 871- 874, Lausanne, Switzerland, September 1996.
- [137] R. T. H. Yan, L. Onural, A. N. Venetsanopoulos, "Multiple-codebook Run-length Vector Quantization for Image Coding", *Third International Conference on Signal Processing, ICSP'96*, vol 2, pp. 1019-1021, Beijing, China, October 1996.
- [138] A. A. Alatan, A. T. Erdem and L. Onural, "Three-D Motion and Dense Structure Estimation Using Convex Projections" *Proceedings, SPIE VCIP97*, vol 3024-2, pp. 1122-1131, San Jose, California, February 1997.
- [139] A. A. Alatan and L. Onural, "Utilization of 3-D Motion Models in Video Coding: Occlusion Detection and Motion Compensated Temporal Interpolation" *Advances in Digital Image Communication, Proceedings of 2nd Erlangen Symposium*, pp. 85-92, Erlangen, Germany, April 1997.
- [140] A. A. Alatan and L. Onural, "Nesneye Dayalı Görüntü Dizisi Sıkıştırma Uygulamaları İçin 3-B Hareket Yardımıyla Açılan Örtülen Bölge Tespiti" 5. *Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, vol II, pp. 604-608, Kuşadası, Turkey, May 1997 (In Turkish).
- [141] A. Alatan, E. Tuncel and L. Onural, "Object Segmentation via Rule-Based Data Fusion" *Proceedings of Workshop on Image Analysis for Multimedia Interactive Services WIAMIS'97*, pp. 51-56, Louvain-la-Neuve, Belgium, June 1997.
- [142] A. Alatan, E. Tuncel and L. Onural, "A Rule-based method for object segmentation in video sequences", *1997 IEEE International Conference on Image Processing, ICIP'97* Santa Barbara, California, vol II, pp 522-525 October 1997.
- [143] S. Kiranyaz and L. Onural, "Motion compensated frame interpolation techniques for VLBR coding", *1997 IEEE International Conference on Image Processing, ICIP'97* Santa Barbara, California, (in CD) October 1997.

- [144] E. Tuncel, A. Alatan, T. Ekmekci and L. Onural, "Dizilerin Otomatik Olarak Bölütlenmesi için Bir Yöntem", 6. *Sinyal İşleme ve Uygulamaları Kurultayı SIU'98 Kitapçığı*, pp, 462-467, Kızılcahamam, Ankara, Turkey, May 1998. (in Turkish.)
- [145] E. Tuncel and L. Onural, "Video Object Segmentation By Extended Recursive-Shortest-Spanning-Tree Method", *Proceedings of the IEEE-EURASIP Workshop on Nonlinear Signal and Image Processing (NSIP'99)*, pp.23-27, Antalya, Turkey, June 1999.
- [146] İ. Ş. Yetik, H. M. Ozaktas, B. Barshan, and L. Onural, "Perspective Projections in the Space-frequency Plane and Fractional Fourier Transforms", *Proceedings of the First IEEE Balkan Conference on Signal Processing, Communications, Circuits, and Systems (CD-ROM)*, İstanbul, Turkey, 2-3 June 2000.
- [147] İ. Ş. Yetik, H. M. Ozaktas, B. Barshan, and L. Onural, "Perspektif Dönüşümünün Zaman-sıklık Düzleminde İncelenmesi. *Sinyal İşleme ve Uygulamaları Kurultayı, SIU'2000*, pp 629-633, Belek, Antalya, Turkey, 12-14 June 2000. (In Turkish)
- [148] E. Esen and L. Onural, "Supervised Segmentation for Video Applications", *Proceedings of The Sixteenth International Symposium on Computer and Information Sciences (ISCIS XVI)*, pp.576-583, Antalya, Turkey, November 2001.
- [149] G.B Esmer, L. Onural, "Hologram Simülatorü", 11. *Sinyal İşleme ve Uygulamaları Kurultayı Kitapçığı*, pp. 487-490, Koç Üniversitesi, İstanbul, Türkiye, Haziran 2003 (In Turkish)
- [150] G.B. Esmer, L.Onural, "Simulation of scalar optical diffraction between arbitrarily oriented planes", *Proceedings of 2004 First International Symposium on Control, communications and signal Processing, ISCCSP 2004*, pp. 225-228, Hammamet, Tunisia, 21-24 March 2004
- [151] L. Onural, T. Sikora, A. Smolic, "An Overview of a New European Consortium: Integrated Three-dimensional Television - Capture, Transmission and Display (3 DTV)", *European Workshop on the Integration of Knowledge, Semantics and Digital Media Technology (EWIMT'04)*, London, November 2004.
- [152] L. Onural and H. M. Ozaktas, "Diffraction and holography from a signal processing perspective", *Holography 2005: International Conference on Holography, Optical Recording, and Processing of Information: SPIE Proceedings 6252*, pages 19-1-19-8, Varna, Bulgaria, 21-25 May 2005.

- [153] G. B. Esmer and L. Onural, "Computation of Holographic Patterns Between Tilted Planes", *Holography 2005: International Conference on Holography, Optical Recording, and Processing of Information: SPIE Proceedings 6252*, Varna, Bulgaria, 21-25 May 2005.
- [154] E. Ulusoy, L. Onural, and H. M. Özaktaş, "Analysis of the Complex Light Field Generated by a Deflectable Mirror Array Device" *Holography 2005: International Conference on Holography, Optical Recording, and Processing of Information: SPIE Proceedings 6252*, pages 1L-1–1L-6, Varna, Bulgaria, 21-25 May 2005.
- [155] V. Sainov, E. Stoykova, L. Onural, and H. M. Ozaktas, "Trends in Development of Dynamic Holographic Displays" *Holography 2005: International Conference on Holography, Optical Recording, and Processing of Information: SPIE Proceedings 6252*, pages 1C-1–1C-7, Varna, Bulgaria, 21-25 May 2005.
- [156] L. Onural and H. M. Ozaktas, "Signal Processing Issues in Diffraction and Holographic 3DTV", *Proc. of the EURASIP 13th European Signal Processing Conference (EUSIPCO 2005) (CD-ROM)*, (invited paper), vol II, pp 979-982, Antalya, Turkey, 4-8 September 2005.
- [157] E. Ulusoy, L. Onural, H. M. Ozaktas, V. Uzunov, and A. Gotchev, "Three-dimensional Complex Scalar Light Field Synthesis with a Deflectable Mirror Array Device" *Second Workshop on Immersive Communication and Broadcast Systems (ICOB 2005) (CD-ROM)*, Berlin, Germany, 27-28 October 2005.
- [158] G. B. Esmer, L. Onural, H. M. Özaktaş, and A. Gotchev, "An Algorithm for Calculation of Scalar Optical Diffraction due to Distributed Data over 3-D Space, *Second Workshop on Immersive Communication and Broadcast Systems (ICOB 2005) (CD-ROM)*, Berlin, Germany, 27-28 October 2005.
- [159] L. Onural, H. Özaktaş, M. I. Kovachev, R. T. Ilieva-Kovacheva, T. Reyhan, O. Aytür, G. B. Esmer, and E. Ulusoy. Üç-boyutlu Televizyon ve Optik. In *Yedinci Ulusal Optik, Elektro-Optik ve Fotonik Çalışma Toplantısı*, page 26, Ankara, 12 December 2005.
- [160] E. Ulusoy, V. Uzunov, L. Onural, H. M. Ozaktas, and A. Gotchev, "Three-dimensional Monochromatic Light Field Synthesis with a Deflectable Mirror Array Device" *Photon Management II: SPIE Proceedings 6187*, pages 1J-1–1J-12, Photonics Europe, Strasbourg, France, 3-7 April 2006.
- [161] L. Onural, H. M. Ozaktas, E. Stoykova, A. Gotchev, J. Watson, "An Overview of the Holographic Display Related Tasks within the European 3DTV Project", *Proc. of SPIE vol 6187 Photon Management II*, pp. 61870T-1 - 61870T-10, Strasbourg, France, 3-7 April 2006.

- [162] L. Onural, T. Sikora, J. Ostermann, A. Smolic, M. R. Civanlar and J. Watson, "An Assessment of 3DTV Technologies", *NAB Broadcast Engineering Conference Proceedings 2006*, pp. 456-467, Las Vegas, USA, 22-27 April 2006.
- [163] K. Köse, A. E. Çetin, U. GÜdükbay, L. Onural, "Dikdörtgensel Olmayan Dalgacık Dönüşümüne Dayalı Çok Çözünürlüklü Üç Boyutlu Model Analizi ve Sıkıştırması", *14. Sinyal İşleme ve Uygulamaları Kurultayı SIU'06* Antalya, Turkey, April 2006. (in Turkish)
- [164] K. Köse, A. E. Çetin, U. GÜdükbay, L. Onural, "Nonrectangular wavelets for multiresolution mesh analysis and compression", in *Proc. of SPIE Conf. on Independent Component Analyses, Wavelets, Unsupervised Smart Sensors, and Neural Networks IV*, vol 6247, Orlando, Florida, April, 2006.
- [165] L. Onural, "State of the Art and Future Directions in 3DTV", Keynote Speech, *The First Multimedia Communications Workshop: State of the Art and Future Directions, Multicomm'06*, İstanbul, Turkey, 11 June 2006.
- [166] A. Gotchev and L. Onural, "A Survey on Sampling and Quantization in Diffraction and Holography", *Proceedings of the 2006 International TICSP Workshop on Spectral Methods and Multirate Signal Processing, SMMSP2006*, pp 179-190, Florence, Italy, 2-3 September 2006.
- [167] V. Uzunov, A. Gotchev, G. B. Esmer, L. Onural and H. M. Ozaktas, "Non-uniform Sampling and Reconstruction of Diffraction Field", *Proceedings of the 2006 International TICSP Workshop on Spectral Methods and Multirate Signal Processing, SMMSP2006*, pp 191-197 Florence, Italy, 2-3 September 2006.
- [168] M. Kovachev, R. Ilieva, L. Onural, G. B. Esmer, T. Reyhan, P. Benzie, J. Watson and E. Mitev, "Reconstruction of Computer Generated Holograms by Spatial Light Modulators", *Proceedings of Int. Workshop on Multimedia Content Representation, Classification and Security MRCS'06, Lecture Notes in Computer Science*, vol 4105/2006, pp 706-713, İstanbul, Turkey, 11-13 September 2006.
- [169] L. Onural, "Current Issues in Holographic 3DTV" (Invited paper), *Proceedings of ICO Topical Meeting on Optoinformatics/Information Photonics - Session "In Memoriam of Emmett Leith: Enlightening the World of Holography"*, pp 54-57, St. Petersburg, Russia, 4-7 September 2006.
- [170] L. Onural, "The European 3DTV Project", (Invited Presentation), *3DTV Broadcasting and Applications Workshop*, Seoul, Korea, 27 September 2006.
- [171] E. Ulusoy, G. B. Esmer, H. M. Ozaktas, L. Onural, A. Gotchev and V. Uzunov, "Signal Processing Problems and Algorithms in Display Side of 3DTV", *IEEE Int. Conf. on Image Processing, ICIP'06*, Atlanta, GA, USA, October 2006.

- [172] V. Uzunov, G. B. Esmer, A. Gotchev, L. Onural, and H. M. Ozaktas, "Bessel Functions-Based Reconstruction of Non-Uniformly Sampled Diffraction Fields" 3DTV-CON 2007, Kos Island, Greece, 7-9 May 2007.
- [173] G. B. Esmer, L. Onural, V. Uzunov, A. Gotchev and H. M. Ozaktas "Reconstruction of Scalar Diffraction Field from Distributed Data Points Over 3D Space" 3DTV-CON 2007, Kos Island, Greece, 7-9 May 2007.
- [174] K. Kose, A. E. Cetin, U. Gudukbay, L. Onural "Connectivity-Guided Adaptive Lifting Transform for Image Like Compression of Meshes" 3DTV-CON 2007, Kos Island, Greece, 7-9 May 2007.
- [175] K. Köse, A. E. Çetin, U. Güdükbay, L. Onural, "Bağlantılılıkla Yönlendirilmiş, Uyarlamalı Dalgacık Dönüşümü ile Üç Boyutlu Model Sıkıştırılması", *15. Sinyal İşleme ve Uygulamaları Kurultayı SIU'07* Eskişehir, Turkey, pp 1-4, June 2007. (in Turkish)
- [176] L. Onural, "An Overview of Research in 3DTV" (Extended Abstract - Keynote Speech), IWSSIP and EC-SIPMCS 2007, Maribor, Slovenia, June 2007.
- [177] L. Onural, "Holographic 3DTV Research within the European 3DTV Project", Invited Presentation, in *Biomedical Optics/Digital Holography and Three-Dimensional Imaging/Laser Applications to Chemical, Security and Environmental Analysis on CD-ROM* (The Optical Society of America, Washington, DC, 2008), St. Petersburg, FL, USA, March 2008.
- [178] V. Yucesoy, D. Tunaoglu, M. Kovachev, R. Ilieva, L. Onural, "Design and Implementation of a DMD Based Volumetric 3D Display", *3DTV Conference: The True Vision - Capture, Transmission and Display of 3D Video*, pp 29-32, Istanbul, May 2008.
- [179] G. B. Esmer, L. Onural, H. M. Ozaktas, V. Uzunov, A. Gotchev, "Performance Assessment of A Diffraction Field Computation Method Based on Source Model", *3DTV Conference: The True Vision - Capture, Transmission and Display of 3D Video*, pp 257-260, Istanbul, May 2008.
- [180] F. Yaras, M. Kovachev, R. Ilieva, M. Agour, L. Onural, "Holographic Reconstructions Using Phase-Only Spatial Light Modulators", *3DTV Conference: The True Vision - Capture, Transmission and Display of 3D Video*, pp PD1-PD4, Istanbul, May 2008.
- [181] F. Yaras and L. Onural, "Color Holographic Reconstruction Using Multiple SLMs and LED Illumination", *Proc. SPIE 7237*, January 2009.

- [182] F. Yaraş, H. Kang, and L. Onural, "Real-time Multiple SLM Color Holographic Display Using Multiple GPU Acceleration", in *Digital Holography and Three-Dimensional Imaging (Optical Society of America)*, paper DWA4, April 2009.
- [183] H. Kang, F. Yaraş, L. Onural, and H. Yoshikawa, "Real-time Fringe Pattern Generation with High Quality, in *Digital Holography and Three-Dimensional Imaging (Optical Society of America)*, paper DtuB7, April 2009.
- [184] F. Yaras, H. Kang, and L. Onural, "Real-time Color Holographic Video Display System", in *Proceedings of 3D TV Conference: The True VisionCapture, Transmission and Display of 3D Video (IEEE)*, May 2009.
- [185] H. Kang, F. Yaraş, L. Onural, "Quality Comparison and Acceleration for Digital Hologram Generation Method Based on Segmentation", in *Proceedings of 3D TV Conference: The True VisionCapture, Transmission and Display of 3D Video (IEEE)*, May 2009.
- [186] T. J. Naughton, T. Kreis, L. Onural, P. Ferraro, "Processing of optically captured digital holograms for three-dimensional display", *Proc. SPIE*, vol 7329, May 2009.
- [187] L. Onural, F. Yaras, H. Kang, "Current Research Activities on Holographic Video Displays", *SPIE Conference Three-dimensional Imaging, Visualization, and Display*, vol 7690, pp 7690A-01, Apr 2010.
- [188] E. Ulusoy, L. Onural, H. M. Ozaktas, "İkili Uzamsal Işık Modülatörleri Kullanan Holografik Üç Boyutlu Televizyon Ekranları için Sinyal İşleme (Signal Processing for Three-Dimensional Holographic Television Displays that Use Binary Spatial Light Modulators), 18. Sinyal İşleme ve İletişim Uygulamaları Konferansı (SİU), pp 41-44, Diyarbakır, Turkey, Apr 2010.
- [189] E. Şahin, L. Onural, H. J. Kang, "Holografik Stereogramların Değişken Boyutlu Bölütler Kullanılarak Geri Çatım Kalitelerinin Arttırılması (The Reconstruction Quality Improvement of Holographic Stereograms via Variable Size Segmentation) 18. Sinyal İşleme ve İletişim Uygulamaları Konferansı (SİU), pp 169-172, Diyarbakır, Turkey, Apr 2010.
- [190] F. Yaras, H. Kang, L. Onural, "Multi-SLM Holographic Display System with Planar Configuration", *3DTV-CON 2010*, Tampere, Finland, Jun 2010.
- [191] T. J. Naughton, C. Falldorf, L. Onural, P. Ferraro, C. Depeursinge, S. Krueger, Y. Emery, B. M. Hennelly, M. Kujawińska, "Capture, Processing, and Display of Real-world 3D Objects Using Digital Holography: Results from a European Funded Project" (Invited Paper), 9th Euro-American Workshop on Information Optics (WIO), Helsinki, Finland, Jul 2010.

- [192] T.J. Naughton, C. Falldorf, L. Onural, P. Ferraro, C.D. Depeursinge, S. Krueger, Y. Emery, B.M. Hennelly, and M. Kujawińska, "3D Capture, Processing, Display, and Perception with Digital Holography: Results from a European-Funded Project", *Digital Holography and Three-Dimensional Imaging*, OSA, Tokyo, Japan, May 2011.
- [193] M. Paturzo, A. Pelagotti, A. Geltrude, M. Locatelli, P. Poggi, R. Meucci, P. Ferraro, E. Stoykova, F. Yaraş, A. Özgür Yöntem, H. Kang, L. Onural, *Infrared Digital Holography Applications for Virtual Museums and Diagnostics of Cultural Heritage*, *SPIE Proceedings: Optics for Arts, Architecture and Archeology III*, vol. 8084, pp. 80840K-1 - 80840K-6, Munich, Germany, May 2011. (doi.org/10.1117/12.890039)
- [194] G. B. Esmer, H. M. Özaktaş, L. Onural, "Örnekleme Yerlerinin Skalar Kırınım Deseninin Doğru Hesaplanmasındaki Etkisi", *20. Sinyal İşleme ve İletişim Uygulamaları Konferansı (SİU)*, pp 1-4, Fethiye, Muğla, Turkey, Apr 2012. (In Turkish)