

Dr. Levent Onural

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.

Journal Papers:

- [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. Bozdađı and A. Atalar, "New High-resolution Display Device for Holographic Three-dimensional 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. Güreli 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. Bozdađı, 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. Güreli, "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. Bozdađı, 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. Güreli 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. Mattocchia 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.
- [63] E. Stoykova, F. Yaraş, A. Ö. Yöntem, H. Kang, L. Onural, P. Hamel, Y. Delactaz, I. Bergoënd, C. Arfire and C. Depeursinge, "Optical reconstruction of transparent objects with phase-only SLMs", *Optics Express*, vol 21, no 23, pp 28246-28257, Nov 2013.
- [64] Y. Hayasaki, C. Zhou, G. Popescu, L. Onural, "Feature issue of digital holography and 3D imaging (DH) introduction" *Optics Express*, vol 22, no 23, pp 29117-29118, Nov 2014.
- [65] O. Kulce, L. Onural and H. M. Ozaktas, "Evaluation of the validity of the scalar approximation in optical wave propagation using a systems approach and an accurate digital electromagnetic model", *Journal of Modern Optics*, vol 63, no 21, pp 2382-2391, 2016.

Book Chapters:

- [66] 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.

- [67] 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.
- [68] 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
- [69] 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.

Papers in Conference Proceedings:

- [70] 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.
- [71] 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.
- [72] 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.
- [73] 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.
- [74] L. Onural, "Conditional Markov Random Fields Applied to Textured Fractal Pattern Generation", *Preprint Booklet, The First International Conference on Statistical Computing*, pp. 666, Çeşme, İzmir, Turkey, 30 March - 2 April 1987.
- [75] 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)

- [76] L. Onural ve P. D. Scott, "Tek-Işınlı Hologramların Sayısal Çözümlemesi", *Elektrik Mühendisliği 2. Ulusal Kongresi*, sayfa 78-81, Ankara, Turkey, Eylül 1987. (In Turkish)
- [77] 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)
- [78] 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)
- [79] 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.
- [80] 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.
- [81] L. Onural, "Vector Gibbs Random Fields and Colored Textures", *The Third International Symposium on Computer and Information Sciences (ISCIS)*, Invited Paper, (Ed. E. Gelenbe, E. Orhun and E. Başar), pp. 455-462, İzmir, Turkey, November 1988.
- [82] 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.
- [83] 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.
- [84] 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)
- [85] 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)

- [86] S. H. Oğuz, L. Onural, "Baskılı Devre Kartlarının Kurula Dayalı Morfolojik Transformasyon Teknikleri Kullanılarak Görüntüsel Olarak İncelenmesi", *ODTÜ EEMB 30. Yıl Sempozyumu*, pp. 40-43, Ankara, Turkey, February 1989. (In Turkish)
- [87] 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.
- [88] 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.
- [89] 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.
- [90] 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.
- [91] 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.
- [92] 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 [90]).
- [93] 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.
- [94] 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)
- [95] G. Bozdağı, L. Onural, "Görüntü İşleyicisi ile Holografi Simülasyonu", *Elektrik Mühendisliği 3. Ulusal Kongresi*, pp. 598-601, İstanbul, Turkey, September 1989. (In Turkish)

- [96] 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.
- [97] M. İ. Gürelli 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.
- [98] L. Onural, Mehmet İzzet Gürelli, "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.
- [99] 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.
- [100] 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.
- [101] 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).
- [102] 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).
- [103] 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.
- [104] M. İ. Gürelli, 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.
- [105] 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.

- [106] L. Onural, G. Bozdađı, 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.
- [107] G. Bozdađı, 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.
- [108] 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.
- [109] G. Bozdađı, 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).
- [110] 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 Deđişik Öngörü Yönteminin Başarımlarının Karşılaştırılması", *1. Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 93-98, İstanbul, Nisan 1993, (In Turkish).
- [111] G. Bozdađı, 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.
- [112] G. Bozdađı, 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.
- [113] 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.

- [114] G. Bozdađı, 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.
- [115] G. Bozdađı, 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, Muđla, Nisan 1994, (In Turkish).
- [116] 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, Muđla, Nisan 1994, (In Turkish).
- [117] 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, Muđla, April 1994.
- [118] L. Öktem, L. Onural, "Kutupsal Kütle Dađılımına Dayalı Yeni Bir Kodlama Sistemi", *2. Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 158-161, Gökova, Muđla, Nisan 1994, (In Turkish).
- [119] A. A. Alatan, L. Onural, "Üç Boyutlu Hareket Bilgisinin Kestiriminde Gibbs Formülasyonu", *2. Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 167-172, Gökova, Muđla, Nisan 1994, (In Turkish).
- [120] L. Onural, M. Kocatepe, H. M. Özaktaş, "Dalga Yayılımı ile İlintili bir Dalgacık Çekirdeđi Sınıfı", *2. Sinyal İşleme ve Uygulamaları Kurultayı Bildiriler Kitabı*, pp. 333-338, Gökova, Muđla, Nisan 1994, (In Turkish).
- [121] 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.
- [122] G. Bozdađı, 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.
- [123] 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.
- [124] 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.

- [125] 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.
- [126] G. Bozdađı, 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.
- [127] 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.
- [128] 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.
- [129] 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
- [130] 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.
- [131] A. A. Alatan H. T. Bostancı, S. Kiranyaz, 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.
- [132] 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.
- [133] 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.

- [134] 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.
- [135] 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.
- [136] 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.
- [137] 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.
- [138] 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.
- [139] 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.
- [140] 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.
- [141] 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.
- [142] 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.
- [143] 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).

- [144] 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.
- [145] 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.
- [146] 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.
- [147] 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.)
- [148] 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.
- [149] 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.
- [150] İ. Ş. Yetik, H. M. Ozaktas, B. Barshan, and L. Onural, "Perspektif Dönüşümünün Zaman-sıklık Düzleminde İncelenmesi. *Sinyal İşleme ve Uygulamaları Kurultayı, SİU'2000*, pp 629-633, Belek, Antalya, Turkey, 12-14 June 2000. (In Turkish)
- [151] 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.
- [152] G.B Esmer, L. Onural, "Hologram Simülatörü", *11. Sinyal İşleme ve Uygulamaları Kurultayı Kitapçığı*, pp. 487-490, Koç Üniversitesi, İstanbul, Türkiye, Haziran 2003 (In Turkish)
- [153] 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

- [154] L. Onural, T. Sikora, A. Smolic, "An Overview of a New European Consortium: Integrated Three-dimensional Television - Capture, Transmission and Display (3DTV)", *European Workshop on the Integration of Knowledge, Semantics and Digital Media Technology (EWIMT'04)*, London, November 2004.
- [155] 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.
- [156] 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.
- [157] E. Ulusoy, L. Onural, and H. M. Özaktas, "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.
- [158] 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.
- [159] 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.
- [160] 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.
- [161] G. B. Esmer, L. Onural, H. M. Özaktas, 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.
- [162] L. Onural, H. Özaktas, 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.

- [163] 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.
- [164] 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.
- [165] 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.
- [166] 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)
- [167] 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.
- [168] 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.
- [169] 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.
- [170] 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.
- [171] 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.

- [172] 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.
- [173] L. Onural, "The European 3DTV Project", (Invited Presentation), *3DTV Broadcasting and Applications Workshop*, Seoul, Korea, 27 September 2006.
- [174] 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.
- [175] 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.
- [176] 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.
- [177] 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.
- [178] K. Köse, A. E. Çetin, U. Gündükbay, 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)
- [179] L. Onural, "An Overview of Research in 3DTV" (Extended Abstract - Keynote Speech), IWSSIP and EC-SIPMCS 2007, Maribor, Slovenia, June 2007.
- [180] 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.
- [181] 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 (3DTV-CON)*, pp 29-32, Istanbul, May 2008.
- [182] 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 (3DTV-CON), pp 257-260, Istanbul, May 2008.

- [183] 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 (3DTV-CON)*, pp PD1-PD4, Istanbul, May 2008.
- [184] F. Yaras and L. Onural, "Color Holographic Reconstruction Using Multiple SLMs and LED Illumination", *Proc. SPIE 7237*, January 2009.
- [185] 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.
- [186] 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.
- [187] F. Yaras, H. Kang, and L. Onural, "Real-time Color Holographic Video Display System", "in *Proceedings of 3D TV Conference: The True Vision Capture, Transmission and Display of 3D Video (IEEE) (3DTV-CON)*, May 2009.
- [188] 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 Vision Capture, Transmission and Display of 3D Video (IEEE)(3DTV-CON)*, May 2009.
- [189] 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.
- [190] 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.
- [191] 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 (SIU)*, pp 41-44, Diyarbakır, Turkey, Apr 2010.
- [192] E. Şahin, L. Onural, H. 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.

- [193] F. Yaras, H. Kang, L. Onural, "Multi-SLM Holographic Display System with Planar Configuration", *3DTV-CON 2010*, Tampere, Finland, Jun 2010.
- [194] 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.
- [195] 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.
- [196] F. Yaraş, H. Kang, L. Onural, "Circularly Configured Multi-SLM Holographic Display System", in *Proceedings of 2011 3DTV Conference: The True Vision Capture, Transmission and Display of 3D Video (IEEE)(3DTV-CON)*, May 2011.
- [197] 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)
- [198] 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)
- [199] O. Kulce and L. Onural, "Analysis of the Longitudinal Component of the Electric Field Generated by Flat and Pixelated Liquid Crystal Displays", *Proceedings of 2016 3DTV Conference: The True Vision Capture, Transmission and Display of 3D Video (IEEE) (3DTV-CON)*, Hamburg, Germany, July 2016.
- [200] L. Onural, "Design of a 360-degree Holographic 3D Video Display Using Commonly Available Display Panels and a Paraboloid Mirror", *Proc. SPIE 10126, Advances in Display Technologies VII, 101260I*, San Francisco, USA, February, 2017; doi:10.1117/12.226733.

- [201] O. Kulce and L. Onural, "Geniř Optik Alanlarda Geleneksel Sayıl Yaklařım Sonucunda Oluřan Bölgesel Hatanın Analizi (Local Error Analysis Arising from the Conventional Scalar Approximation in Wide Optical Fields)", 25. *Sinyal İřleme ve İletiřim Uygulamaları Konferansı (SİU)*, Antalya, Turkey, May 2017. (In Turkish)
- [202] O. Kulce and L. Onural, "Phase Retrieval from Electric Field Intensity for Wide Angle Optical Fields", *OSA Imaging and Applied Optics Congress 2017*, paper CTu1B.4, San Francisco, USA, June 2017.