List of Publications

Josef Scharinger

Publications 2005: [8, 57]
Publications 2004: [2]
Publications 2003: [55, 56, 58, 59, 54]
Publications 2002: [49, 52, 50, 51, 53]
Publications 2001: [48, 45, 46, 5, 47, 44]
Publications 2000: [42, 41, 43]
Publications 1999: [40, 39]
Publications 1998: [24, 25, 26, 27, 28, 29, 37, 30]
Publications 1997: [4, 19, 20, 21, 22, 35, 23]
Publications 1996: [33, 34, 36, 9, 10]
Publications 1995: [15, 14]
Publications 1994: [18, 31, 32]
Publications 1993: [60]
Patents: [16, 17, 38, 12]
Austrian and international media: [3, 7, 1, 61, 6, 11, 13]

References

[1] Austrian Press Agency. Elektronische "Unterschrift" schützt Copyright bei Digital-Bildern. APA ID: APA0072 5 CI 0316 KI/XI, 5. April 2000.

[2] Wilhelm Burger and Josef Scharinger, editors. *Digital Imaging in Media and Education*. Oesterreichische Computer Gesellschaft, 2004.

[3] Meinhard Buzas. Schlüssel ins elektronische Universum. *Uni-Nachrichten*, Ausgabe Nr. 2:5, Montag, 14. Dezember 1998.

[4] D. Schütt, F. Pichler, and J. Scharinger. Cryptographic permutations based on BOOT decompositions of Walsh matrices. In *Lecture Notes in Computer Science, vol. 1333*, pages 580–590. Springer Verlag, 1997.

[5] Guido Deinhammer and Josef Scharinger. Multidimensional pattern classification for fractal image compression using central moments. In *Computer Vision, Computer Graphics and Photogrammetry – a Common Viewpoint*, pages 135–142, 2001.

[6] Der Standard. Eine "Unterschrift" für digitale Bilder. Ausgabe vom 6. April, Seite 13, 2000.

[7] Andreas Hutter. Uni Linz schlägt US-Spionen ein Schnippchen. *Volksblatt*, Ausgabe Nr. 2:5, Mittwoch, 29. März 2000.

[8] Ryszard Klempous, Henryk Maciewski, Jan Nikodem, Maciej Nikodem, Jerzy Rozenblit, Josef Scharinger, and Carmen Paz Suarez Araujo. Decision support system using data warehousing and on-line analytical processing technologies. In *Cast and Tools for Robotics, Vehicular and Communications Systems – EXTENDED ABSTRACTS*, pages 45–46, 2005.

[9] W. Kozek, H.G. Feichtinger, and J. Scharinger. Gabor analysis and linear systems identification. In *Proceedings of the Int. Conf. on Systems Identification in Engineering Systems*, pages 560–569, Swansea, UK, 1996.

[10] W. Kozek, H.G. Feichtinger, and J. Scharinger. Matched multiwindow methods for the estimation and filtering of nonstationary random processes. In *Proceedings IEEE ISCAS '96*, pages 509–512, Atlanta, GA, 1996.

[11] La Provincia. Eurocast da a conocer un nuevo sistema que impide interceptar e-mails con destino privado. Ausgabe vom 22. Februar, Seite 19, 2001.

[12] S. Meine, D. Schütt, and J. Scharinger. Verschlüsselungsverfahren auf Basis von Karnaugh-Tafeln. Deutsches Patent 2003E06806DE, 2003.

[13] N.N. Uni-Software kann Zählerstand abfragen. *ChefINFO*, 12(7):73, 2002.

[14] F. Pichler and J. Scharinger. Ciphering by Bernoulli-shifts in finite Abelian groups. In *Contributions to General Algebra 9*, pages 249–256, 1995.

[15] F. Pichler and J. Scharinger. Finite dimensional generalized baker dynamical systems for cryptographic applications. In *Lecture Notes in Computer Science, vol. 1030*, pages 465–476. Springer-Verlag, Berlin, 1995.

[16] F. Pichler, J. Scharinger, and D. Schütt. BOOT-Parametrisierung für Chiffrier-Permutationen. Deutsches Patent 97 E 8002 DE, 1997.

[17] F. Pichler, J. Scharinger, and D. Schütt. Digitales Vielkanal CDMA Code-Hopping Übertragungssystem. Deutsches Patent DE 102 04 876.2 vom 06.02.2002, 2001.

[18] J. Scharinger. Analysis of Baker-Prigogine systems by means of Chrestenson functions. In *Cybernetics and Systems'94*. World Sientific, Singapore, New Jersey, London, Hong Kong, 1994.

[19] J. Scharinger. Fast encryption of image data using chaotic Kolmogoroff flows. In *Storage and Retrival for Image and Video Databases V, SPIE Proceedings vol. 3022*, pages 278–289, 1997.

[20] J. Scharinger. Image compression by multilevel polynomial interpolation and wavelet texture coding. In *Lecture Notes in Computer Science, vol. 1333*, pages 431–443. Springer Verlag, 1997.

[21] J. Scharinger. Kolmogorov systems: Internal time, irreversibility and cryptographic applications. In *Proceedings of CASYS '97: Computing Anticipatory Systems*, pages 33–36, Liege, Belgium, 1997.

[22] J. Scharinger. Robust image compression for teleoperation and robotics applications. In *Proceedings of* `robots@aec.at`, pages 135–150. Oldenbourg Verlag, 1997.

[23] J. Scharinger. Robust image compression using multilevel polynomial interpolation. In *Pattern Recognition 1997*, pages 39–48. Oldenbourg Verlag, 1997.

[24] J. Scharinger. A fast encryption algorithm providing security in distributed multimedia applications. In K. Fazekas, editor, *3rd International Conference on Multimedia Technology and Digital Telecommunication Services, ICOMT '98*, pages 147–156. Scientific Society for Telecommunications, Hungary, 1998.

[25] J. Scharinger. Fast encryption of image data using chaotic Kolmogorov flows. *Journal of Electronic Imaging*, 7(2):318–325, April 1998.

[26] J. Scharinger. Improving wavelet image coders by iterative polynomial interpolation. In Branka Zovko-Cihlar, Sonja Grgic, and Mislav Grgic, editors, *Proc. IWSSIP '98*, pages 63–66, Zagreb, Croatia, 1998.

[27] J. Scharinger. Irreversibility aspects of Kolmogorov systems. In R. Trappl, editor, *Cybernetics and Systems '98, vol. 1*, pages 71–76. Austrian Society for Cybernetic Studies, 1998.

[28] J. Scharinger. Kolmogorov systems: Internal time, irreversibility and cryptographic applications. In *Computing Anticipatory Systems, vol. 437 of AIP Conference Proceedings*, pages 539–551. American Institute of Physics, 1998.

[29] J. Scharinger. Secure and fast encryption using chaotic Kolmogorov flows. In *Information Theory Workshop 1998, IEEE Catalog Number, 98EX131*, pages 124–125, Killarney, Ireland, 1998. IEEE.

[30] J. Scharinger, H. Gaderbauer, and G. Wilflingseder. Redesigning the FBI fingerprint compression standard. In *Pattern Recognition and Medical Computer Vision*, pages 215–223, Wien, München, 1998. Oldenburg Verlag.

[31] J. Scharinger and F. Pichler. Bernoulli Chiffren. *Elektrotechnik und Informationstechnik*, 11, 1994.

[32] J. Scharinger and F. Pichler. Dyadische Chiffren. *Elektrotechnik und Informationstechnik*, 11, 1994.

[33] J. Scharinger and F. Pichler. Efficient image encryption based on chaotic maps. In *Pattern Recognition '96, Proceedings of the 20th Workshop of the AAPR*, pages 159–170. Oldenbourg Verlag, 1996.

[34] J. Scharinger, F. Pichler, H.G. Feichtinger, and F. Leberl. Comparison of lossy image compression techniques with respect to their impact on edge detection. In *Applications of Digital Image Processing XIX, SPIE Proceedings Volume 2847*, pages 479–490, 1996.

[35] J. Scharinger, F. Pichler, and R. Freigassner. Digital image processing methods applied to remote sensing data for ozone analysis in an industrial region. In *Proceedings of Umweltinformatik '97, vol. 2*, pages 790–799, Strassburg, 1997.

[36] J. Scharinger, F. Pichler, W. Kozek, and H.G. Feichtinger. Chaotic Kolmogorov flows for image encryption. In *Cybernetics and Systems '96, vol. 1*, pages 111–116. Austrian Society for Cybernetic Studies, 1996.

[37] J. Scharinger, F. Pichler, and D. Schütt. Fast singular value decomposition by BOOT algebra for image restoration. In *Signal Processing and Communications*, pages 129–132, Anaheim, Calgary, Zürich, 1998. IAESTED/Acta Press.

[38] J. Scharinger and D. Schütt. Erzeugung und Detektion von Wasserzeichen in Bildern unter Nutzung von Quadtree-Pfaden im Wavelet-Bereich. Deutsches Patent 2003E02513DE, 2003.

[39] Josef Scharinger. Robust watermark generation for multimedia copyright protection. In *Robust Vision for Industrial Applications 1999*, pages 127–136, 1999.

[40] Josef Scharinger. Secure watermark generation for multimedia copyright protection. In *IWSSIP '99*, pages 177–180, 1999.

[41] Josef Scharinger. Application of nonlinear chaotic systems for secure digital watermark generation. In *Cybernetics and Systems 2000*, pages 68–72, 2000.

[42] Josef Scharinger. Secure digital watermark generation based on chaotic Kolmogorov flows. In *Security and Watermarking of Multimedia Contents II*, pages 306–313, 2000.

[43] Josef Scharinger. Transform-domain digital image watermarking. In *Proceedings of First International Workshop on Spectral Techniques and Logic Design for Future Digital Systems*, pages 245–282, 2000.

[44] Josef Scharinger. Analysis of chaotic systems for communication security applications. In *Proceedings of the 14th International Conference on Systems Science*, volume 3, pages 78–85, 2001.

[45] Josef Scharinger. Application of signed Kolmogorov hashes to provide integrity and authenticity in web-based software distribution. In *Formal Methods and Tools for Computer Science*, pages 85–88, 2001.

[46] Josef Scharinger. Application of signed Kolmogorov hashes to provide integrity and authenticity in web-based software distribution. In R. Moreno-Diaz, Bruno Buchberger, and Jose-Luis Freire, editors, *EUROCAST 2001, LNCS 2178*, pages 257–269. Springer-Verlag, 2001.

[47] Josef Scharinger. Construction of data dependent chaotic permutation hashes to ensure communications integrity. In Pascal Lorenz, editor, *Networking – ICN 2001*, volume 2, pages 196–205, 2001.

[48] Josef Scharinger. Image compression and coding. In Walter G. Kropatsch and Horst Bischof, editors, *Digital Image Analysis: Selected Techniques and Applications*, pages 81–130. Springer Verlag, New York, 2001.

[49] Josef Scharinger. Analysis and application of chaotic permutation system. In *Cybernetics and Systems 2002*, volume 1, pages 57–62, 2002.

[50] Josef Scharinger. Biometrie – Stand der Entwicklungen, Möglichkeiten und Grenzen für höhere IT-Sicherheit. *Monitor*, 9:28, September 2002. ISSN 1021-271X.

[51] Josef Scharinger. Intelligent peripheral devices for copyright enforcement in digital imaging. In *EurAsia-ICT 2002*, pages 73–77, 2002.

[52] Josef Scharinger. A new approach to increase robustness in digital image watermarking. In *Vision with Non-Traditional Sensors*, pages 209–216, 2002.

[53] Josef Scharinger. A new approach to robust watermarking for copyright protection in digital imaging. In *Recent Trends in Multimedia Information Processing*, pages 403–406, 2002.

[54] Josef Scharinger. Detecting watermarks at arbitrary image resolution. In *Proceedings of the International Symposium on Information and*

Communication Technologies, pages 82–87. ACM International Conference Proceedings Series, Computer Science Press, Trinity College, 2003.

[55] Josef Scharinger. Devices to preserve watermark security in image printing and scanning. In *Cast and Tools for Complexity in Biological, Physical and Engineering Systems*, pages 122–124, 2003.

[56] Josef Scharinger. Devices to preserve watermark security in image printing and scanning. In *Computer Aided Systems Theory – EUROCAST 2003*, pages 660–669. Springer LNCS 2809, 2003.

[57] Josef Scharinger. An excellent permutation operator for cryptographic applications. In *Cast and Tools for Robotics, Vehicular and Communications Systems – EXTENDED ABSTRACTS*, pages 176–177, 2005.

[58] Josef Scharinger and Christian Schöppl. A new approach to stereo image compression. In *Vision in a Dynamic World*, pages 43–49. Oesterreichische Computer Gesellschaft, 2003.

[59] Josef Scharinger and Christian Schöppl. Stereo image compression by searching for redundancies in the wavelet domain. In *Recent Trends in Multimedia Information Processing*, pages 40–43. Sdelovacitechnika spol. s.r.o., 2003.

[60] T. Müller-Wipperfürth and J. Scharinger and F. Pichler. FSM shift register realization for improved testability. In *Lecture Notes in Computer Science, vol. 763*, pages 254–267. Springer Verlag, Berlin, 1993.

[61] Wiener Zeitung. Elektronische Signatur schützt Copyright. Ausgabe vom 6. April, Seite 11, 2000.