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Nota di contenuto Invited Lecture -- Reversible Data Hiding -- Fingerprinting Curves --

Informed Detection Revisited -- Session I: Systems -- A Counter-Geometric Distortions Data Hiding Scheme Using Double Channels in Color Images -- A Secure Internet-Based Personal Identity Verification System Using Lossless Watermarking and Fingerprint Recognition --Better Use of Human Visual Model in Watermarking Based on Linear Prediction Synthesis Filter -- Watermarking System for QoS Aware Content Adaptation -- Session II: Theory -- Weighted Segmented Digital Watermarking -- Robust Estimation of Amplitude Modification for Scalar Costa Scheme Based Audio Watermark Detection --Reversible Data Hiding Using Integer Wavelet Transform and Companding Technique -- Session III: Authentication and Stego --Alteration-Locating Authentication Watermarking for Binary Images --On Security Notions of Steganographic Systems -- A Multi-feature Based Invertible Authentication Watermarking for JPEG Images --Steganographic Scheme Using a Block Cipher -- Watermarking Attack: Security of WSS Techniques -- Session IV: Cryptography -- Flaws in

Generic Watermarking Protocols Based on Zero-Knowledge Proofs -- Cryptanalysis of a Wavelet Based Watermarking Scheme -- A Generalized Method for Constructing and Proving Zero-Knowledge Watermark Proof Systems -- Towards the Public but Noninvertible Watermarking -- A Generalization of an Anonymous Buyer-Seller Watermarking Protocol and Its Application to Mobile Communications -- Session V: Methods -- Robust Frequency Domain Audio Watermarking: A Tuning Analysis -- Watermarking Technique for Authentication of 3-D Polygonal Meshes -- Fidelity-Controlled Robustness Enhancement of Blind Watermarking Schemes Using Evolutionary Computational Techniques -- Robust Watermarking on Polygonal Meshes Using Distribution of Vertex Norms -- A Video Watermarking Using the 3-D Wavelet Transform and Two Perceptual Watermarks.

Sommario/riassunto

We are happy to present to you the proceedings of the 3rd International Workshop on Digital Watermarking, IWDW 2004. Since its modern reappearance in the academic community in the early 1990s, great progress has been made in understanding both the capabilities and the weaknesses of digital watermarking. On the theoretical side, we all are now well aware of the fact that digital watermarking is best viewed as a form of communication using side information. In the case of digital watermarking the side information in question is the document to be watermarked. This insight has led to a better understanding of the limits of the capacity and robustness of digital watermarking algorithms. It has also led to new and improved watermarking algorithms, both in terms of capacity and imperceptibility. Similarly, the role of human perception, and models thereof, has been greatly enhanced in the study and design of digital watermarking algorithms and systems. On the practical side, applications of watermarking are not yet abundant. The original euphoria on the role of digital watermarking in copy protection and copyright protection has not resulted in widespread use in practical systems. With hindsight, a number of reasons can be given for this lack of practical applications.