

PROPOSAL OF A WATERMARKING SCHEME USING WINDING NUMBER

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We propose a new scheme for robust watermarking against general geometric distortions, such as rotation, scale, and translation. Some previous methods that are robust for geometric distortion need synchronism between embedded and detected locations. However, synchronism requires extensive calculations and there don't resist radical distortions. We propose a watermarking scheme embedding in topological space by using a winding number. Winding number is a topological invariant and this is not changed by geometric distortions, and does not require synchronism.