



Robust non-blind color video watermarking using QR decomposition and entropy analysis

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Titre	Robust non-blind color video watermarking using QR decomposition and entropy analysis
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Auteur	Rasti, Pejman [1], Samiei, Salma [2], Agoyi, Mary [3], Escalera, Sergio [4]
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Résumé en anglais	Issues such as content identification, document and image security, audience measurement, ownership and copyright among others can be settled by the use of digital watermarking. Many recent video watermarking methods show drops in visual quality of the sequences. The present work addresses the aforementioned issue by introducing a robust and imperceptible non-blind color video frame watermarking algorithm. The method divides frames into moving and non-moving parts. The non-moving part of each color channel is processed separately using a block-based watermarking scheme. Blocks with an entropy lower than the average entropy of all blocks are subject to a further process for embedding the watermark image. Finally a watermarked frame is generated by adding moving parts to it. Several signal processing attacks are applied to each watermarked frame in order to perform experiments and are compared with some recent algorithms. Experimental results show that the proposed scheme is imperceptible and robust against common signal processing attacks.
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Titre abrégé	J. vis. commun. image represent.

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- [1] <http://okina.univ-angers.fr/httpperso-laris.univ-angers.frrasti/publications>
- [2] <http://okina.univ-angers.fr/user/8138/publications>
- [3] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=29017>
- [4] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=29005>
- [5] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=25241>
- [6] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=25240>
- [7] <http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=25243>
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- [11] <http://okina.univ-angers.fr/publications/ua17506>
- [12] <http://dx.doi.org/10.1016/j.jvcir.2016.05.001>
- [13] <https://www.sciencedirect.com/science/article/pii/S1047320316300591?via%3Dihub>

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