

-- THESIS, BOOK --

- F. Lohier, **Doctoral Thesis** (« Cum Laude »): "Programming Methodologies and benchmarking of real-time image processing algorithms" (*Méthodologies de programmation et évaluation des processeurs de traitement de signal parallèles pour le traitement d'images en temps réel*) – Feb. 4, 2000, Pierre et Marie Curie University (UPMC), 4 Pl. Jussieu, 75005 Paris, France
- Prof. Didier Demigny and *al.*, *Méthodes et architectures pour le Traitement du Signal et de l'image en temps réel*, Editions Hermes – 2001, ISBN 2-7462-0327-8 - TMS320C80 & C6X's chapters by F. Lohier

-- SCIENTIFIC AND TECHNICAL PUBLICATIONS --

- H. Blasinski, Wei Hai, F. Lohier, *FPGA Architecture for Real-time barrel distortion correction of color images*, International Conference on Multimedia & Expo, ICME2011, July 11-15, 2011 Barcelona, Spain
- A. Suissa, J. Mellor, F. Lohier, P. Garda, *A Novel Video Packet Loss Concealment Algorithm & real-time implementation*, DASIP08, Conference on Design and Architectures for Signal and Image Processing, Brussels, Belgium, Nov 24 2008
- F. Lohier, S. Juelsgaard, *Interactive real-world multimedia streaming on embedded devices: a novel object-oriented architecture*, GSPx & International Signal Processing Conference (IEEE), Sept. 27-30 2004, Santa Clara, California
- F. Lohier, P. Garda, L. Lacassagne, *Masked-Motion-JPEG2000: A New Reduced-Complexity Video Sequence Compression Scheme Based on a MRF-motion Detection Algorithm Towards Inter-Frame Masking*, ICSPAT00, International Conference on Signal Processing Applications & Technologies, Dallas, Texas, Oct. 16-19 2000
- F. Lohier, L. Lacassagne, P. Garda, *A New Methodology to Optimize DMA Data Caching: Application towards the Real-time Execution of an MRF-based Motion Detection Algorithm on a Multi-processor DSP*, ICSPAT99, 10th International Conference on Signal Processing Applications & Technologies, Orlando, Florida, November 1-4 1999, article 199
- L. Lacassagne, F. Lohier, Prof M. Milgram, *Implémentation Temps-réel d'algorithme de détection de mouvement par champs de Markov sur RISC et DSP C6x*, GRETSI 1999, 17^{ème} Colloque sur le Traitement du Signal, Vannes, France, Sept. 13-17 1999, Vol. 2, p.315-317
- F. Lohier, L. Lacassagne, P. Garda, *Generic Programming Methods for the Real-time Implementation of a MRF-based Motion Detection Algorithm on a Multi-processor DSP with Multi-dimensional DMA*, GRETSI 1999, Vannes, France, Sept. 13-17 1999, Vol. 4, p.1217-1220
- F. Lohier, L. Lacassagne, P. Garda, *A Generic Methodology for the Software Managing of Caches in Multi-processors DSP Architectures - Application to the Real-time Implementation of Low Level Image Processing on the TMS320C80*, ICASSP 99, International Conference on Acoustics, Speech, and Signal Processing (IEEE), Phoenix, Arizona, March 15-19 1999, Vol. 4, article 1668 – **Best paper award nominee**
- F. Lohier, P. Garda, *A Software Engineering Methodology to Optimize Caching in Multi-processor DSP Architectures: TMS320C80 Results Towards the Real-time Execution of Low Level Image Processing*, ASSET99, Symposium on Application-Specific Systems and Software Engineering Technology, Richardson, TX, March 24-27 1999, p.146-154
- F. Lohier, L. Lacassagne, P. Garda, *A DSP Implementation of Optimal Edge Detector*, Multimedia Systems Design Magazine, Sept. 1998, Vol. 2, article 9, p.26-35
- L. Lacassagne, F. Lohier, P. Garda, *Real-time Execution of Optimal Edge Detectors on RISC and DSP Processors*, ICASSP 98, 23th IEEE International Conference on Acoustics, Speech and Signal Processing, Seattle, Washington, May 12-15 1998, Vol. 5, article 1735, p.3101-3104
- F. Lohier, L. Lacassagne, P. Garda, *Programming Techniques for the Real-time Software Implementation of Optimal Edge Detectors: A Comparison Between State of The Art DSPs and RISC Architectures*, DSP World Design Conference, Santa Clara, April 21-23 1998, p.343-359

-- PATENTS (GRANTED and PENDING) --

- F. Lohier and *al.*; *Method and Device for processing image sequences with masking* – WO2001057803A1
- F. Lohier and *al.*; *Camera with foldable arm for lens* – USD543569
- Jeffrey S. Anderson, F. Lohier and *al.*; *Ease-of-use wireless speakers* – US9294840B1
- Paul Kovitz, F. Lohier and *al.*; *Systems and methods for wireless device connection and pairing* – US8823494B1
- Richard Nicolet, F. Lohier and *al.*; *Transparent support of multiple bus interfaces on a Device* – US20080147928

- Richard Nicolet, F. Lohier; *Real-time video frame masking and processing for auto focus and other quality optimizations* – US8384820B1
- Loic Segapelli, F. Lohier and *al.*; *Extended Flicker Cancellation for auto exposure for a video camera* – US20110292241
- F. Lohier, Joachim Nuesch; *Wireless Multimedia Device with real time adjustment of packet retry and bit rate modulation* – US8451910B1
- F. Lohier, *Portable device with distributed messaging capability* – WO2010096632A1
- Pierre Sarda, F. Lohier; *Transferring Digital Media Rights in social network environment* – US20140012666A1
- F. Lohier; *Entrusted device localization scheme using ultrasound signatures* – WO2015102930A1 / US9903940
- Dante Zeviar, Frantz Lohier; *System and Method for Object Recognition and Ranging by deformation of projected shapes in a multimodal vision and sensing system for autonomous devices* – filed in 2017, not yet published
- Frantz Lohier and *al.*; *Apparatus and Method for a Vehicle Platform* – filed in 2017, not yet published
- Frantz Lohier, Ali Moayer; *Endoscope Apparatus with Forced Disposability* – US20180263464
- Frantz Lohier, Ali Moayer; *Method and Apparatus for Enforced provisioning and compliant usage authorization of endoscope applications* – US10905309 (granted)
- Frantz Lohier, Ali Moayer; *Method and apparatus for motion analysis and scene reconstruction for general endoscope instruments* – filed in 2017, not yet published
- Frantz Lohier; *Method and apparatus towards metadata generation and extraction for general-purpose endoscope instruments filed in 2017, not yet published*
- Frantz Lohier; *Method and apparatus for real-time communication exchange towards optimized and traceable Airline Ground Operations* – filed in 2017, not yet published

-- PUBLISHED PATENT STATUS --

Number	Priority Date	Expiration date / comment
WO2001057803A1	Feb 2, 2000	Feb 2020
USD543569	Oct 7, 2005	Oct 2019
US9294840B1	Dec 17, 2010	Dec 2030
US8823494B1	Nov 19, 2010	Nov 2030
US20080147928	Oct 5, 2006	Oct 2026
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US20110292241	May 30, 2010	May 2030
US8451910B1	Jul 13, 2006	July 2026
WO2010096632A1	Feb 22, 2009	Abandoned
US20140012666A1	Jul 6, 2012	Jul 2032
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