

2021

PhD thesis

- •B. Das

Automated objective speech markers for differential diagnosis between parkinson's disease and atypical parkinsonian disorders
defended September 30th, 2021. [HAL](#) .

Articles in international peer-reviewed journals

- • H. Aetesam, S. Kumar Maji, H. Yahia

Bayesian approach in a learning-based hyperspectral image denoising framework
IEEE Access (open access) [HAL](#) .

- • H. Yahia et. al.

**Description of turbulent dynamics in the interstellar medium:
multifractal/microcanonical analysis I. Application to *Herschel* observations of the
Musca filament**
Astronomy & Astrophysics [HAL](#) : [Arxiv](#) :

International peer-reviewed conferences

- • A. Rashidi et. al.

**Fast image deconvolution for enhancement of the resolution in the video rate
terahertz imaging**
46th International Conference on Infrared, Millimeter, and Terahertz Waves, Oral
presentation . [HAL](#) .

- • K. Daoudi, B. Das et. al.

**Distortion of voiced obstruents for differential diagnosis between parkinson's
disease and multiple system atrophy**
Interspeech 2021. [HAL](#) .

2020

Articles in international peer-reviewed journals

- • N. Brodu, J. Crutchfield
Discovering Causal Structure with Reproducing-Kernel Hilbert Space ϵ -Machines
Submitted [Arxiv](#) .

- • L. Bonne et. al.
Formation of the Musca filament: evidence for asymmetries in the accretion flow due to a cloud-cloud collision
Astronomy & Astrophysics [HAL](#) .

- • G. Phartiyal, N. Brodu, D. Singh, H. Yahia, K. Daoudi
Permuted Spectral and Permuted Spectral-Spatial CNN Models for PolSAR-Multispectral Data based Land Cover Classification
IJRS [HAL](#) .

- • A. El Aouni et. al.
Robust Detection of the North-West African Upwelling From SST Images
IEEE Geoscience & Remote Sensing Letters [HAL](#) .

- • J. Barès, N. Brodu, H. Zheng, J. A. Dijksman
Transparent experiments: releasing data from mechanical tests on three dimensional hydrogel sphere packings
Granular Matter, Springer Verlag, 2020, 22 (1), pp.21 [HAL](#) .

- • S. K. Maji, R. K. Thakur, H. Yahia
Structure-preserving denoising of SAR images using multifractal feature analysis
IEEE Geoscience & Remote Sensing letters, 2020, [HAL](#) .

- • A. El Aouni, K. Daoudi, H. Yahia, S. K. Maji, K. Minaoui
Defining Lagrangian coherent vortices from their trajectories
Physics of Fluids, American Institute of Physics, 2020, [HAL](#) .

EGU General Assembly 2020 ([Web site](#))

- •F. Schmitt, H. Yahia, J. Sudre, V. Garçon, G. Charria, B. Dewitte
Scaling and anisotropic heterogeneities of ocean SST images from satellite data
EGU 2020 Session NP2.1 "Nonlinear Multiscale and Stochastic Dynamics of the Earth System" . [HAL](#) .

- •G. Charria, S. Theetten, A. Ayouche, C. Poppeschi, J. Sudre, H. Yahia, V. Garçon

Multi-scale coastal surface temperature in the Bay of Biscay and the English Channel

EGU 2020 Session NP2.1 "Nonlinear Multiscale and Stochastic Dynamics of the Earth System" . [HAL](#) .

PhD thesis

- •A. El Aouni

Lagrangian coherent structures and physical processes of coastal upwelling
defended **September 24, 2019**. [HAL](#) . "Prix de thèse Systèmes complexes" CNRS
ISC-PIF 2020 ! [Link to ISC-PIF prize list.](#)

Invited communications

- • H. Yahia et. al.

**Description of turbulent dynamics in the interstellar medium:
multifractal/microcanonical analysis**
sftools-bigdata : The close structural connection between gas and young stars,
focus on current and new tools of data analysis 27-30 Oct 2020 Grenoble (France) [H](#)
[AL](#)
:

2019

Articles in international peer-reviewed journals

- • A. El Aouni, V. Garçon, J. Sudre, H. Yahia, K. Daoudi, K. Minaoui

**Physical and Biological Satellite Observations of the Northwest African Upwelling:
Spatial Extent and Dynamics**
IEEE Transactions on Geoscience and Remote Sensing. [IEEE Xplore](#) . [HAL](#) .

- • A. El Aouni, H. Yahia, K. Daoudi, K. Minaoui

A Fourier approach to Lagrangian vortex detection
Chaos, American Institute of Physics, 29, 093106. [Link to Chaos](#) . [HAL](#) .

- • S. K. Maji, H. Yahia
A Feature based Reconstruction Model for Fluorescence Microscopy Image Denoising
Scientific Reports, Nature Publishing Group, 2019, 9 (1). [Link to Nature Scientific Reports](#) . [HAL](#) .
- • G. Attuel, E. Gerasimova, F. Argoul, H. Yahia and A. Arnéodo
Multifractal desynchronization of the cardiac excitable cell network during atrial fibrillation. II. Modeling
Frontiers in Physiology. [Link to Frontiers in Physiology article](#) . [HAL](#) .
- • A. El Aouni, K. Daoudi, H. Yahia, K. Minaoui, A. Benazzouz
Surface mixing and biological activity in the North-West African upwelling Chaos, American Institute of Physics, 29 (1), pp 0111042018, 2019. [HAL](#) .

International peer-reviewed conferences

- • A. El Aouni et. al.
The contribution and influence of coherent mesoscale eddies off the North-West African Upwelling on the open ocean
SIAM Conference on Mathematics of Planet Earth (MPE18). [HAL](#) .

Summer Institute on Network Physiology

- • G. Attuel, H. Yahia
The fall of the reentry paradigm of cardiac fibrillation
Second international Summer Institute on Network Physiology. [Link to ISINP](#) . [H](#)
[AL](#)
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2018

Articles in international peer-reviewed journals

- •H. Yahia, V. Garçon, J. Sudre, C. Maes
Effect of wind stress forcing on ocean dynamics at air-sea interface
Frontiers of Information Technology & Electronic Engineering, 2018. [HAL](#) .
- •A. Tamim et al.
Automatic Detection of Moroccan Coastal Upwelling Zones using Sea Surface Temperature Images
International Journal of Remote Sensing, Taylor & Francis, 2018. [HAL](#) .
- •I. Hernandez-Carrasco, V. Garçon, J. Sudre, C. Garbe, H. Yahia
Increasing the Resolution of Ocean pCO₂ Maps in the South Eastern Atlantic Ocean
Merging Multifractal Satellite-Derived Ocean Variables
IEEE Transactions on Geoscience and Remote Sensing, 2018. [HAL](#) .

International peer-reviewed conferences

- • N. Brodu
Low-rankness transfer for denoising Sentinel-1 SAR images
ISIVC'2018 - 9th International Symposium on Signal, Image, Video and Communications, Nov 2018 . [HAL](#) .
- • L. Bonne, S. Bontemps, N. Schneider, T. Csengeri , H. Yahia, R. Günsten, G. Attuel, A. Roy, R. Simon
Search for filamentary accretion through low velocity shocks
2018 Science for the Atacama Pathfinder Experiment (APEX). [HAL](#) .
- • A. El Aouni, K. Daoudi, H. Yahia, K. Minaoui
Coherent Vortex Detection from Particles Trajectories Analysis
2018 SIAM Conference on Nonlinear Waves and Coherent Structures. [HAL](#) .
- • A. El Aouni, K. Daoudi, H. Yahia, K. Minaoui
Surface Mixing and Biological Activity in The North African Upwelling
AGU Ocean Sciences Meeting 2018. [HAL](#) .
- • G. S. Phartiyal, N. Brodu, D. Singh, H. Yahia
A mixed spectral and spatial Convolutional Neural Network for Land Cover

Classification using SAR and Optical data

EGU General Assembly, Vienna, 2018. [HAL](#) .

- • G. Li, K. Daoudi, J. Klempir, J. Ruz

Linear classification in speech-based objective differential diagnosis of

Parkinsonism

ICASSP'2018. [HAL](#) .

2017

Articles in international peer-reviewed journals

- • J. A. Dijkman, N. Brodu, R. Behringer

Refractive index matched scanning and detection of soft particles

Review of Scientific Instruments, American Institute of Physics. [HAL](#) .

- • G. Attuel et al.

Multifractal desynchronization of the cardiac excitable cell network during atrial fibrillation. I. Multifractal analysis of clinical data

Frontiers in Physiology. [Link to Frontiers in Physiology article](#) . [HAL](#) .

- • N. Brodu

Super-resolving multiresolution images with band-independent geometry of multispectral pixels

IEEE Transactions on Geoscience and Remote Sensing, 2017. [HAL](#) .

- • F. Frappart, L. Bourrel, N. Brodu, X. Salazar, F. Baup, J. Darrozes, R. Pombosa

Monitoring of the Spatio-Temporal Dynamics of the Floods in the Guayas Watershed (Ecuadorian Pacific Coast) Using Global Monitoring ENVISAT ASAR Images and Rainfall Data

Water, MDPI, 2017, 9, pp.12 - 31, 2017. [HAL](#) .

- • O. Yelekçi et al.

Spatial and Seasonal Distributions of Frontal Activity over the French Continental Shelf in the Bay of Biscay

Continental Shelf Research, Elsevier, 2017. [HAL](#) .

International peer-reviewed conferences

- • V. J.-L. Ralaiarisoa, A. Valance, N. Brodu, R. Delannay
High speed confined granular flows down inclined: numerical simulations
EPJ Web of Conferences, 2017. [HAL](#) .
- • A. El Aouni et al.
Surface Mixing and Biological Activity in The North African Upwelling
AGU Ocean Sciences Meeting 2018, Feb 2018, Portland, USA. [HAL](#) .
- • G. Attuel, H. Yahia
Cardiac arrhythmias and Griffiths phase: desynchronization of excitable cells
STATPHYS 26. [HAL](#) .
- • J. Sudre, H. Yahia, C. Maes, V. Garçon,
Effect of wind stress forcing on ocean dynamics at Air-Sea Interface
SOLAS Conference, 15-18 May 2017, Cargese. [HAL](#) .

2016

Book chapter

- • G. Attuel, O. Pont, B. Xu, H. Yahia
Sudden Cardiac Death and Turbulence
in Ferdinand Verhulst & Christos H. Skiadas Eds. **The Foundations of Chaos Revisited: From Poincaré to Recent Advancements** , Springer, 2016. [HAL](#) .

Articles in international peer-reviewed journals

- • H. Badri, H. Yahia
A Non-Local Low-Rank Approach to Enforce Integrability
IEEE Transactions on Image Processing , 2016. [HAL](#) .
- • H. Badri, H. Yahia, D. Aboutajdine
Low-Rankness Transfer for Realistic Denoising
IEEE Transactions on Image Processing, 2016. [HAL](#) .
- • S. Kumar Maji, H. Yahia, T. Fusco
A Multifractal-based Wavefront Phase Estimation Technique for Ground-based

Astronomical Observations

IEEE Transactions on Geoscience and Remote Sensing, 2016. [HAL](#) .

International peer-reviewed conferences

- •A. Garg et al.
A novel approach for optimal weight factor of DT-CWT coefficients for land cover classification using MODIS data
Geoscience and Remote Sensing Symposium (IGARSS), 2016 IEEE International, Beijing, China . [HAL](#) .
- •O. Pont et al.
Complexity in Electrophysiological Dynamics. Emergence and measures of organization
2nd BCAM Workshop on Nonlinear Dynamics in Biological Systems, September 2016, Bilbao, Spain . [HAL](#) .
- •A. El Aouni et al.
An improved method for accurate computation of coastal upwelling index using Sea Surface Temperature Images
AICCSA 2016. [HAL](#) .
- •A. El Aouni et al.
Detection of Moroccan coastal upwelling using sea surface chlorophyll concentration
AICCSA 2015. [HAL](#) .
- •N. Brodu, D. Singh, A. Garg
A sub-pixel resolution enhancement model for multiple-resolution multispectral images
European Geophysical Union General Assembly 2016, Apr 2016, Vienne, Austria. 2016 . [HAL](#) .
- •L. Bourrel, N. Brodu, F. Frappart
Land cover in the Guayas Basin using SAR images from low resolution ASAR Global mode to high resolution Sentinel-1 images
European Geophysical Union General Assembly 2016, Apr 2016, Vienne, Austria. 2016 . [HAL](#) .
- •G. Rosi et al.
Caractérisation de la Réponse Ultrasonore d'Implant Dentaire : Simulation Numérique et Analyse des Signaux

Congrès Français d'Acoustique 2016, Le Mans. [HAL](#) .

- •Z. Galaz et al.
Degree of Parkinson's Disease Severity Estimation Based on Speech Signal Processing
IEEE 39th International Conference on Telecommunications and Signal Processing, Jun 2016, Vienna, Austria . [HAL](#) .
- •K. Daoudi, N. Brodu, J. Ruzs, J. Klempir
Objective discrimination between Progressive Supranuclear Palsy and Multiple System Atrophy using speech analysis
38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (IEEE-EMBC'16), Aug 2016, Orlando, United States . [HAL](#) .
- •A. Garg, N. Brodu, H. Yahia, D. Singh
An Approach to optimize the fusion coefficients for land cover information enhancement with multisensor data
EGU General Assembly 2016, session: Thermo-hydro-mechanical couplings and deep geothermal energy , 2016. [HAL](#) .
- •H. Yahia et al.
General methodology for the derivation of high resolution oceanic data through information fusion at different scales
ESA Living Planet Symposium, 2016. [HAL](#) .
- •G. Attuel, H. Yahia
The role of abnormal inhibitory transmission at the gap junctions of cardiac cells in fibrillation
Physical Principles of Biological and Active Systems, IOP Institute of Physics, Topical Meeting Edinburgh, United Kingdom , January 2016. [HAL](#) .
- •O. Yelekçi et al.
Wintertime Submesoscale River Plumes in the Bay of Biscay
GHER Colloquium. Submesoscale Processes: Mechanisms, Implications and new Frontiers, May 2016, Liege, Belgium , May 2016. [HAL](#) .
- •J. Sudre, H. Yahia, O. Pont and V. Garçon
How to obtain ocean turbulent dynamics at super resolution from optimal multiresolution analysis and multiplicative cascade?
GHER Colloquium. Submesoscale Processes: Mechanisms, Implications and new Frontiers, May 2016, Liege, Belgium , May 2016. [HAL](#) .
- •O. Yelekçi et al.
Spatial and Seasonal Distributions of Frontal Activity over the Continental Shelf in the Bay of Biscay, Focus on Density Fronts in Winter
AGU Ocean Science Meeting, New Orleans, 21-26 , February 2016. [HAL](#) .

Invited sessions

- •H. Badri, H. Yahia
Non-convex sparsity. Applications in Image processing.
IEEE ICCS 2016, Roorkee, India.
- •N. Brodu
Super-resolving multiresolution images with band-independent geometry of multispectral pixels.
IEEE ICCS 2016, Roorkee, India. [HAL](#) .

Arxiv

- •B. Xu, R. Dubois, O. Pont, H. Yahia
Nonlinear trend removal should be carefully performed in heart rate variability analysis
Arxiv, 2016. [HAL](#) .

2015

PhD thesis

- •H. Badri
Sparse and Scale-Invariant Methods in Image Processing
defended **December 1st, 2015. [HAL](#) . "Prix de thèse AFRIF" 2016 !**
- •A. Tamim
Segmentation et classification des images satellitaires : application à la détection des zones d'upwelling côtier marocain et mise en place d'un applicatif de suivi spatio-temporel
defended **September 22, 2015. [HAL](#) . Gold medal, Hubert Curien PhD prize 2017 !**

Book chapter

- •S. Jacquir, B. Xu, S. Binczak, J.-M. Bilbault
Détection d'anomalie dans les signaux physiologiques
in **N. Glade & A. Stéphanou (dir.) Le vivant critique et chaotique, Editions Matériologiques, collection "Modélisations Simulations Systèmes Complexes"**

[HAL](#)

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Articles in international peer-reviewed journals

- •J. Sudre, H. Yahia, O. Pont, V. Garçon
Ocean Turbulent Dynamics at Superresolution From Optimal Multiresolution Analysis and Multiplicative Cascade
IEEE Transactions on Geoscience and Remote Sensing, vol. 53, IGRSD2, number 11, pp. 6274-6285, ISSN 0196-2892 , November 2015. [HAL](#) .
- •N. Brodu, J. A. Dijkman, R. P. Behringer
Spanning the scales of granular materials through microscopic force imaging
Nature Communications, 2015. [HAL](#) .
- •I. Hernandez-Carrasco et al.
Reconstruction of super-resolution fields of ocean pCO₂ and air-sea fluxes of CO₂ from satellite imagery in the Southeastern Atlantic
Biogeosciences, 2015. [HAL](#) .
- •H. Badri, H. Yahia, D. Aboutajdine
Fast Edge-Aware Processing via First Order Proximal Approximation
IEEE Transactions on Visualization and Computer Graphics, 2015. [HAL](#) .
- •A. Tamim, H. Yahia, K. Daoudi, K. Minaoui, A. Atillah, D. Aboutajdine, M. F. Smiej
Detection of Moroccan coastal upwelling fronts in SST images using the microcanonical multiscale formalism
Pattern Recognition Letters, 55, 2015. [HAL](#) .

International peer-reviewed conferences

- • H. Yahia et al.
General methodology for the derivation of high resolution oceanic data through information fusion at different scales
ESA Living Planet Symposium, Prague, Czech Republic 2016. [HAL](#) .
- • G. Attuel, O. Pont, B. Xu, H. Yahia
Sudden cardiac death and Turbulence
The 8th International Conference (CHAOS2015) on Chaotic Modeling, Simulation and Applications, Paris, France 2015. [HAL](#) .
- • B. Xu, S. Jaquir, S. Binczak, H. Yahia, R. Dubois
Classification of Cardiac Arrhythmia in vitro based on Multivariate Complexity Analysis
Computing in Cardiology 2015. [HAL](#) .
- • O. Yelekci, G. Charria, X. Capet, G. Reverdin, J. Sudre, H. Yahia
Spatial and Seasonal Distributions of Frontal Activity over the French continental shelf in the Bay of Biscay observed from satellite Sea Surface Temperature
Geophysical Research Abstracts, Vol. 16, EGU2014-6952, EGU General Assembly 2014
[HAL](#)
:
- • A. Tamim, K. Minaoui, K. Daoudi, A. Atillah, D. Aboutajdine
Detection of Moroccan Coastal Upwelling in SST images using the Expectation-Maximization
10th International Symposium on Visual Computing (ISVC'14), 2014. [HAL](#) .

2014

Articles in international peer-reviewed journals

- • A. Tamim, K. Minaoui, K. Daoudi, H. Yahia, A. Atillah, D. Aboutajdine
An Efficient Tool for Automatic Delimitation of Moroccan Coastal Upwelling Using SST Images
IEEE Geoscience & Remote Sensing Letters, 2014. [HAL](#) .

- • B. Xu, S. Jacquir, G. Laurent, S. Binczak, O. Pont, H. Yahia
In vitro arrhythmia generation by mild hypothermia - a pitchfork bifurcation type process
Physiological Measurement, 2014. [HAL](#) .
- • V. Khanagha, K. Daoudi, O. Pont, H. Yahia
Phonetic segmentation of speech signal using local singularity analysis
Digital Signal Processing, Elsevier, 2014. [HAL](#) .
- • V. Khanagha, K. Daoudi, H. Yahia
Detection of Glottal Closure Instants based on the Microcanonical Multiscale Formalism
IEEE Transactions on Audio, Speech and Language Processing, 2014. [HAL](#) .
- • B. Xu, S. Jacquir, G. Laurent, J.-M. Bilbault, S. Binczak
Analysis of an experimental model of in vitro cardiac tissue using phase space reconstruction
Biomedical Signal Processing & Control, 2014. [HAL](#) .

International peer-reviewed conferences

- • N. Brodu
Approaches for automated feature detection
9th IEEE International Conference on Industrial and Information Systems (ICIIS2014), Gwalior, India 2014. [HAL](#) .
- • H. Badri, H. Yahia
Handling noise in image deconvolution with local/non-local priors
ICIP 2014. [HAL](#) .
- • N. Brodu, J. Dijkstra, R. Behringer
Quantitative DEM of dense granular packings with a multiple contacts force model
Modeling Granular Media Across Scales 2014, [HAL](#) . [Web site](#) .
- • I. Hernandez-Carrasco et al.
Validation of inferred high resolution ocean pCO₂ and air-sea fluxes with in-situ and remote sensing data.
Earth Observation for Ocean-Atmosphere Interactions Science 2014 ESA-ESRIN 2014

[HAL](#)

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- • A. Garg, S. Vardan Naidu, H. Yahia, D. Singh
Wavelet Based Resolution Enhancement for Low Resolution Satellite Images
IEEE ICIIS2014. [HAL](#) .

- • O. Pont
Singularity analysis: a method for properly characterizing complexity in cardiodynamics
International Conference on Complex Systems and Applications ICCSA2014. [HAL](#) .
[Web site](#)
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- • K. Daoudi, B. Bertrac
On classification between normal and pathological voices using the MEEI-KayPENTAX database: Issues and consequences
Interspeech 2014. [HAL](#) .

- • H. Badri, H. Yahia, K. Daoudi
Fast and Accurate Texture Recognition with Multilayer Convolution and Multifractal Analysis
ECCV 2014. [HAL](#) .

- • H. Badri, H. Yahia, D. Aboutajdine
Robust surface reconstruction via triple sparsity
CVPR, 2014. [HAL](#) .

- • A. Tamim, K. Minaoui, K. Daoudi, A. Atillah, H. Yahia, D. Aboutajdine
An Efficient Tool for Automatic Delimitation of Moroccan Coastal Upwelling Using SST Images
ISIVC, Marrakech, Morocco, 2014. [HAL](#) .

- • A. Tamim, K. Minaoui, K. Daoudi, A. Atillah, D. Aboutajdine
On Detectability of Moroccan Coastal Upwelling in Sea Surface Temperature Satellite Images
ISVC, Las Vegas, USA, 2014. [HAL](#) .

- • B. Xu, S. Binczak, S. Jacquir, O. Pont, H. Yahia
Parameters Analysis of FitzHugh-Nagumo Model for a Reliable Simulation
36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'14) 2014. [HAL](#) .

- • O. Pont, B. Xu
Cardiodynamic Complexity: Electrocardiographic Characterization of Arrhythmic Foci

22nd International Conference on Nonlinear Dynamics of Electronic Systems 2014.

[HAL](#)

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- • S. Kumar Maji, T. Fusco, H. Yahia
Cross-scale inference and wavefront reconstruction
SPIE Astronomical Telescopes + Instrumentation, Session: Adaptive Optics Systems IV (Conference 9148) Montreal 2014. [HAL](#) .
- • K. Daoudi, S. Mrad
A novel nonlinear approach to speech perturbation measure for pathological voice classification
IEEE 22nd Pacific Voice Conference, 2014. [HAL](#) .
- • A. Tamim et al.
A Simple Tool for Automatic Extraction of Moroccan Coastal Upwelling from Sea Surface Temperature Images
SITA'14 - 9th International Conference on Intelligent Systems: Theories and Applications 2014. [HAL](#) .
- • B. Xu, S. Binczak, S. Jaquir, O. Pont, H. Yahia
Complexity analysis of experimental cardiac arrhythmia
IEEE Tensymp, 2014. [HAL. Best paper award](#) .
- • O. Yelekci, G. Charria, D. Mawren, X. Capet, G. Reverdin, F. Gohin, J. Sudre, H. Yahia
Observing submesoscale activity in the Bay of Biscay with satellite-derived SST and Chlorophyll concentration
Geophysical Research Abstracts, Vol. 16, EGU2014-6952, EGU General Assembly 2014 2014. [HAL](#) .
- • I. Hernandez-Carrasco et al.
Inference of super-resolution ocean pCO₂ and air-sea CO₂ fluxes from non-linear and multiscale processing methods
Geophysical Research Abstracts, Vol. 16, EGU2014-15142, EGU General Assembly 2014 2014. [HAL](#) .
- • B. Xu, S. Jacquir, S. Binczak, J.-M. Bilbault
Phase Space Reconstruction of an Experimental Cardiac Electrical Signal
ICCSA 2014 : 4th International Conference on Complex Systems and Applications 2014

[HAL](#)

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Invited sessions papers

- • H. Yahia

Edges, transitions, criticality: novel nonlinear characterizations of low-level transition features in signal processing and applications to cross-scale inference in complex signals
ISIVC 2014.

National peer-reviewed conferences

- • J.-M. Bilbault, S. Jacquir, B. Xu, G. Laurent, S. Binczak

Dynamical analysis for an in vitro model signal

34ème Séminaire de la Société Francophone de Biologie Théorique 2013, [HAL](#) .

[Web site](#)

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- • N. Brodu, J. Dijkstra, R. Behringer

Structure and forces in stressed 3D packings

Présentation au GDR Phenix: Driven disordered systems, Laboratoire interdisciplinaire de physique 2014, [HAL](#) . [GDR Phenix web site](#) . [Conference web site](#) .

2013

Articles in international peer-reviewed journals

- • S. K. Maji, H. Yahia

Edges, Transitions and Criticality

Pattern Recognition 47(6) 2104-2115, Elsevier, June 2014. [HAL](#) . [Direct access](#) .

- • S. K. Maji, H. Yahia, H. Badri

Reconstructing an image from its edge representation

Digital Signal Processing, Elsevier, 2013. [HAL](#) .

- • V. Khanagha, K. Daoudi, O. Pont, H. Yahia, A. Turiel
Non-linear speech representation based on local predictability exponents
Neurocomputing, Elsevier, 2013. [HAL](#) .

International peer-reviewed conferences

- • H. Badri, H. Yahia, D. Aboutajdine
Fast Multi-Scale Detail Decomposition via Accelerated Iterative Shrinkage
SIGGRAPH ASIA, 2013. [HAL](#) . [ACM Digital Library](#) .
- • O. Pont, B. Xu
Characterizing Complexity of Atrial Arrhythmias through Effective Dynamics from Electric Potential Measures
Computing in Cardiology, 2013. [HAL](#) .
- • R. Jourani, K. Daoudi, R. André-Obrecht and D. Aboutajdine
Combination of SVM and Large Margin GMM modeling for speaker identification
Eusipco, 2013. [HAL](#) .
- • M. Al Mashrgy, N. Bouguila and K. Daoudi
A statistical framework for positive data clustering with feature selection : application to object detection
Eusipco, 2013. [HAL](#) .
- • A. Tamim, K. Minaoui, K. Daoudi, H. Yahia, A. Atillah, M. F. Smiej, D. Aboutajdine
A simple and efficient approach for coarse segmentation of moroccan coastal upwelling
Eusipco, 2013. [HAL](#) .
- • B. Xu, O. Pont, G. Laurent, S. Jacquir, S. Binczak, H. Yahia
Experimental study of arrhythmia due to mild therapeutic hypothermia after resuscitation of cardiac arrest
Computing in Cardiology, 2013. [HAL](#) .
- • J. Sudre, H. Yahia, V. Garçon
Analyse multirésolution opérée sur des exposants de singularité en formalisme microcanonique: détermination de la dynamique océanique et des échanges océan/atmosphère submésoséchelle
XXIVe Colloque Gretsi - Traitement du Signal et des Images - Brest - 3 au 6 Sept 2013

[HAL](#)

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- • B. Xu, S. Jacquir, G. Laurent, J.-M. Bilbault, S. Binczak
Phase space reconstruction of an experimental model of cardiac field potential in normal and arrhythmic conditions
IEEE EMBC 2013: 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Osaka, July 3-7, 2013 . [HAL](#) .
- • J. Sudre, H. Yahia, O. Pont, C. Pottier, C. Maes, V. Garçon
Validation of high and super resolution ocean dynamics products
European Spatial Agency (ESA) Conference, "Ocean surface currents: towards future mission concepts", 6-8 May 2013, ESA-ESTEC, The Netherlands . [HAL](#) .
- • V. Khanagha, K. Daoudi
Efficient GCI detection for efficient sparse linear prediction
Non-Linear Speech Processing (NOLISP 2013), June 19-21, Mons, Belgium, 2013. [H](#)

[AL](#)

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- • B. Xu, S. Jacquir, O. Pont, H. Yahia
Cardiac arrhythmia induced by hypothermia in a cardiac model in vitro
[40th International Congress on Electrocardiology \(ICE 2013\)](#) , Glasgow, UK, 2013.

[HAL](#)

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[Direct access](#)

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Invited sessions papers

- • O. Pont, H. Yahia, B. Xu
Arrhythmic dynamics from singularity analysis of electrocardiographic maps
IEEE EMBC 2013: 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Osaka, July 3-7, 2013 . [HAL](#) .
- • H. Yahia, D. Singh
Advanced nonlinear approaches for handling complex datasets and acquisitions in Earth Observations and Universe Sciences

India-CEFIPRA workshop in ICST "Challenges in overcoming complexity, from big data to cyberphysical systems", April 4 - 5, 2013, New Delhi- India, Bhagirathi Building - IIT Delhi . [HAL](#) .

National peer-reviewed conferences

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