

# Rémi Emonet's publications

- Year 2018

*Subtle Motion Analysis and Spotting using the Riesz Pyramid*

- C Carlos Arango, Olivier Alata, **Rémi Emonet**, Anne-Claire Legrand, Hubert Konik  
2018 - VISIGRAPP

- Year 2017

*Unsupervised Domain Adaptation Based on Subspace Alignment*

- B Basura Fernando, Rahaf Aljundi, **Rémi Emonet**, Amaury Habrard, Marc Sebban, Tinne Tuytelaars  
2017 - Domain Adaptation in Computer Vision Applications

*Improving Chairlift Security with Deep Learning*

- C Kevin Bascol, **Rémi Emonet**, Élisabeth Fromont, Raluca Debusschere  
2017 - IDA (Intelligent Data Analysis)

*Residual Conv-Deconv Grid Network for Semantic Segmentation*

- C Damien Fourure, **Rémi Emonet**, Élisabeth Fromont, Damien Muselet, Alain Trémeau, Christian Wolf  
2017 - BMVC (British Machine Vision Conference)  
<https://github.com/Fourure/GridNet>

*Multi-task, Multi-domain Learning: application to semantic segmentation and pose regression*

- J Damien Fourure, **Rémi Emonet**, Élisabeth Fromont, Damien Muselet, Natalia Neverova, Alain Trémeau, Christian Wolf  
2017 - Neurocomputing

*L<sup>3</sup>-SVMs: Landmarks-based Linear Local Support Vectors Machines*

- X Valentina Zantedeschi, **Rémi Emonet**, Marc Sebban  
2017 - <http://arxiv.org/abs/1703.00284>  
<http://vzantedeschi.com/l3svms.html>

- Year 2016

*beta-risk: a New Surrogate Risk for Learning from Weakly Labeled Data*

- C Valentina Zantedeschi, **Rémi Emonet**, Marc Sebban  
2016 - NIPS (Neural Information Processing Systems)  
<http://vzantedeschi.com/betarisk.html>

*Unsupervised Interpretable Pattern Discovery in Time Series Using Autoencoders*

- C Kevin Bascol, **Rémi Emonet**, Élisabeth Fromont, Jean-Marc Odobez  
2016 - SSPR (Structural and Syntactic Pattern Recognition)

*Semantic Segmentation via Multi-task, Multi-domain Learning*

- C Damien Fourure, **Rémi Emonet**, Élisabeth Fromont, Damien Muselet, Trémeau Alain, Wolf Christian  
2016 - SSPR (Structural and Syntactic Pattern Recognition)

*Apprentissage de Combinaisons Convexes de Métriques Locales avec Garanties de Généralisation*

- F Valentina Zantedeschi, **Rémi Emonet**, Marc Sebban  
2016 - CAP (Conférence sur l'Apprentissage Automatique)

*Metric Learning as Convex Combinations of Local Models with Generalization Guarantees*

- C Valentina Zantedeschi, **Rémi Emonet**, Marc Sebban  
2016 - CVPR (IEEE conf. Computer Vision and Pattern Recognition)

*Mixed Pooling Neural Networks for Color Constancy*

- C Damien Fourure, **Rémi Emonet**, Élisabeth Fromont, Damien Muselet, Trémeau Alain, Wolf Christian  
2016 - ICIIP (International Conference on Image Processing)

*Segmentation de Scènes Extérieures à Partir d'Ensembles d'Étiquettes à Granularité et Sémantique Variables*

- F Damien Fourure, **Rémi Emonet**, Élisabeth Fromont, Damien Muselet, Trémeau Alain, Wolf Christian  
2016 - RFIA (Reconnaissance des Formes et Intelligence Artificielle)

Lipschitz Continuity of Mahalanobis Distances and Bilinear Forms

- X Valentina Zantedeschi, **Rémi Emonet**, Marc Sebban  
2016 - <http://arxiv.org/abs/1604.01376>

• Year 2015

Landmarks-based Kernelized Subspace Alignment for Unsupervised Domain Adaptation

- C Rahaf Aljundi, **Rémi Emonet**, Damien Muselet, Marc Sebban  
2015 - CVPR (IEEE conf. Computer Vision and Pattern Recognition)  
<publi-2015-cvpr.html>

Predicting a Community's Flu Dynamics with Mobile Phone Data

- C Katayoun Farrahi, **Rémi Emonet**, Manuel Cebrian  
2015 - CSCW (ACM Conference on Computer Supported Cooperative Work and Social Computing)

• Year 2014

Smartphones for Improved Disease Spread Modelling

- ω Katayoun Farrahi, **Rémi Emonet**  
2014 - The Software Sustainability Institute – Blog  
Invited blog post in collaboration with Katayoun Farrahi about our work on contact tracing.  
<http://www.software.ac.uk/blog/2014-10-03-smartphones-improved-disease-spread-modelling>

Contextually Constrained Deep Networks for Scene Labeling

- C Taygun Kekeç, **Rémi Emonet**, Élisabeth Fromont, Alain Trémeau, Christian Wolf  
2014 - BMVC (British Machine Vision Conference)

Prise en Compte du Contexte pour Contraindre les Réseaux Profonds: Application à l'Étiquetage de Scènes

- F Taygun Kekeç, **Rémi Emonet**, Élisabeth Fromont, Alain Trémeau, Christian Wolf  
2014 - CAp (Conférence d'Apprentissage)

Automated Bobbing and Phase Analysis to Measure Walking Entrainment to Music

- C Adolfo López-Méndez, Carina Westling, **Rémi Emonet**, Matt Easteal, Lisa Lavia, Harry Witchel, Jean-Marc Odobez  
2014 - ICIP (International Conference on Image Processing)

Epidemic Contact Tracing via Communication Traces

- J Katayoun Farrahi, **Rémi Emonet**, Manuel Cebrian  
2014 - PLoS ONE

Temporal Analysis of Motif Mixtures using Dirichlet Processes

- J **Rémi Emonet**, Jagannadan Varadarajan, Jean-Marc Odobez  
2014 - TPAMI (Transactions on Pattern Analysis and Machine Intelligence)  
<http://www.idiap.ch/resource/research/probamod-v1/>

What to Show? - Automatic Stream Selection among Multiple Sensors

- C **Rémi Emonet**, Elisabeth Oberzaucher, Jean-Marc Odobez  
2014 - VISAPP (International Conference on Computer Vision Theory and Applications)

Sparsity in Topic Models

- B Jagannadan Varadarajan, **Rémi Emonet**, Jean-Marc Odobez  
2014 - Practical Applications of Sparse Modeling: Biology, Signal Processing and Beyond

• Year 2013

Localized Anomaly Detection via Hierarchical Integrated Activity Discovery

- C Thiyagarajan Chockalingam, **Rémi Emonet**, Jean-Marc Odobez  
2013 - AVSS (IEEE conf. on Advanced Video and Signal-Based Surveillance)

Clustering flood events from water quality time-series using Latent Dirichlet Allocation model

- J Alice Aubert, Romain Tavenard, **Rémi Emonet**, Alban De Lavenne, Simon Malinowski, Thomas Guyet, René Quiniou, Jean-Marc Odobez, Philippe Mérot, Chantal Gascuel-Odoux  
2013 - Water Resources Research

Time-Sensitive Topic Models for Action Recognition in Videos

- C Romain Tavenard, **Rémi Emonet**, Jean-Marc Odobez  
2013 - ICIP (International Conference on Image Processing)

Discovering temporal patterns in water quality time series, focusing on floods with the LDA method

- C Alice Aubert, Romain Tavenard, **Rémi Emonet**, Simon Malinowski, Thomas Guyet, René Quiniou, Jean-Marc Odobez, Chantal Gascuel-Oudou  
2013 - European Geosciences Union (EGU)

A Sequential Topic Model for Mining Recurrent Activities from Long Term Video Logs

- J Jagannadan Varadarajan, **Rémi Emonet**, Jean-Marc Odobez  
2013 - IJCV (International Journal on Computer Vision)  
<http://www.idiap.ch/resource/research/probamod-v1/>

• Year 2012

Automatic Discovery Of Recurrent Motion Activities

- C **Rémi Emonet**, Jean-Marc Odobez, Elisabeth Oberzaucher  
2012 - ISHE (Biennial International Conference on Human Ethology)

Unsupervised Activity Analysis and Monitoring algorithms for Effective Surveillance Systems

- C Jean-Marc Odobez, Cyril Carincotte, **Rémi Emonet**, Erwan Jouneau, Sofia Zaidenberg, Bertrand Ravera, François Bremond  
2012 - ECCV (International Journal on Computer Vision), demonstration paper

Unsupervised Methods for Activity Analysis and Detection of Abnormal Events

- B **Rémi Emonet**, Jean-Marc Odobez  
2012 - Intelligent Video Surveillance Systems

Méthodes non Supervisées Pour l'Analyse d'Activités et la Détection d'Évènements Anormaux

- B **Rémi Emonet**, Jean-Marc Odobez  
2012 - Outils d'Analyse Vidéo pour une Pleine Exploitation des Données de Vidéoprotection

The Environment – Application – Adaptation (EAA) Architecture: introduction and details of an open implementation

- J **Rémi Emonet**  
2012 - IntSys12v5n34 - Journal On Advances in Intelligent Systems  
<http://eaa.heeere.com/>

Socio-Technical Network Analysis from Wearable Interactions

- C Katayoun Farrahi, **Rémi Emonet**, Alois Ferscha  
2012 - ISWC (International Symposium on Wearable Computers)


Bridging the Past, Present and Future: Modeling Scene Activities From Event Relationships and Global Rules

- C Jagannadan Varadarajan, **Rémi Emonet**, Jean-Marc Odobez  
2012 - CVPR (IEEE conf. Computer Vision and Pattern Recognition)

The OMISCID 2.0 Middleware: Usage and Experiments in Smart Environments

- J Rémi Barraquand, Dominique Vaufreydaz, **Rémi Emonet**, Amaury Nègre, Patrick Reignier  
2012 - Soft11v4n34, International Journal On Advances in Software

• Year 2011

 Environment - Application - Adaptation: a Community Architecture for Ambient Intelligence

- C **Rémi Emonet**  
2011 - AMBIENT (International Conference on Ambient Computing, Applications, Services and Technologies)  
publi-2011-ambient.html

Multi-camera Open Space Human Activity Discovery for Anomaly Detection

- C **Rémi Emonet**, Jagannadan Varadarajan, Jean-Marc Odobez  
2011 - AVSS (IEEE conf. on Advanced Video and Signal-Based Surveillance)

Extracting and Locating Temporal Motifs in Video Scenes Using a Hierarchical Non Parametric Bayesian Model

- C **Rémi Emonet**, Jagannadan Varadarajan, Jean-Marc Odobez  
2011 - CVPR (IEEE conf. Computer Vision and Pattern Recognition)  
publi-2011-cvpr.html <http://www.idiap.ch/resource/research/probamod-v1/>

• Year 2010

## A Sparsity Constraint for Topic Models — Application to Temporal Activity Mining

- W** Jagannadan Varadarajan, **Rémi Emonet**, Jean-Marc Odobez  
2010 - NIPS workshop on Practical Application of Sparse Modeling: Open Issues and New Directions, in Whistler, British Columbia, Canada on December 11th, 2010

## Extracting Motifs from Time Series Generated by Concurrent Activities

- W** Jagannadan Varadarajan, **Rémi Emonet**, Jean-Marc Odobez  
2010 - NIPS workshop on Learning and Planning from Batch Time Series Data, in Whistler, British Columbia, Canada on December 11th, 2010

## Case Study of the OMiSCID Middleware: Wizard of Oz Experiment in Smart Environments

- C** Rémi Barraquand, Dominique Vaufraydaz, **Rémi Emonet**, Jean-Pascal Mercier  
2010 - The Fourth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM), Florence - Italy, oct 2010

## Probabilistic Latent Sequential Motifs: Discovering temporal activity patterns in video scenes

- C** Jagannadan Varadarajan, **Rémi Emonet**, Jean-Marc Odobez  
2010 - BMVC (British Machine Vision Conference)

## OMiSCID 2.0, un intergiciel libre et opensource pour la construction d'applications ubiquitaires

- F** Rémi Barraquand, Dominique Vaufraydaz, **Rémi Emonet**, Amaury Nègre, Jean-Pascal Mercier, Patrick Reignier  
2010 - Manifestation des Jeunes Chercheurs en Sciences et Technologies de l'Information et de la Communication (MaJeSTIC), Bordeau, France, 2010

## Selector Based Lookup

- ω Rémi Emonet**  
2010 - DZone – Netbeans Zone  
  
The post is quite specific so it does not create crowd reaction, but still it got more than 3500 views and got the attention of Jaroslav Tulach, original architect of Netbeans.  
  
<http://netbeans.dzone.com/nb-selector-based-lookup>

### • Year 2009

#### Semantic Description of Services and Service Factories for Ambient Intelligence

- Rémi Emonet**  
2009 - Ph.D. Thesis at Grenoble University

### • Year 2008

#### Usable developer-oriented Functionality Composition Language (UFCL): a Proposal for Semantic Description and c Dynamic Composition of Services and Service Factories

- Rémi Emonet**, Dominique Vaufraydaz  
2008 - 4th IET International Conference on Intelligent Environments

#### Osons le constructivisme, atelier de formation aux « débats scientifiques »

- F** Marie-Caroline Croset, **Rémi Emonet**, Emmanuel Frangin, Carmen Galián, Frédéric Huguet, Michaël Sanrey, Julien Douady, Christophe Durand  
2008 - 5ème Colloque sur les « Questions de Pédagogie dans l'enseignement supérieur »

### • Year 2007

#### Autonomic Computer Vision Systems

- C** James L. Crowley, Daniela Hall, **Rémi Emonet**  
2007 - ICVS (International Conference on Computer Vision Systems)

#### Perceptive Services Composition using semantic language and distributed knowledge

- W** **Rémi Emonet**, Dominique Vaufraydaz  
2007 - CMPPC Workshop (PERVASIVE07) position articles

### • Year 2006

#### An automatic approach for parameter selection in self-adaptive tracking

- C** Daniela Hall, **Rémi Emonet**, James L. Crowley  
2006 - VISAPP (International Conference on Computer Vision Theory and Applications)

#### O3MiSCID: an Object Oriented Opensource Middleware for Service Connection, Introspection and Discovery

- W** **Rémi Emonet**, Dominique Vaufraydaz, Patrick Reignier, Julien Letessier  
2006 - 1st IEEE International Workshop on Services Integration in Pervasive Environments

*A Lightweight Speech Detection System for Perceptive Environments*

**W** Dominique Vaufreydaz, **Rémi Emonet**, Patrick Reignier

2006 - 3rd Joint Workshop on Multimodal Interaction and Related Machine Learning Algorithms

*O3MiSCID, un intergiciel sous OSGi pour l'informatique ubiquitaire*

**F** Patrick Reignier, Sonia Zaidenberg, **Rémi Emonet**, Dominique Vaufreydaz, Julien Letessier

2006 - Atelier OSGi, 3e Journées Francophones Mobilité et Ubiquité

• **Year 2005**

*Comparison of target detection algorithms using adaptive background models*

**W** Daniela Hall, J. Nascimento, P. Ribeiro, E. Andrade, P. Moreno, Sebastien Pesnel, T. List, **Rémi Emonet**, R.B. Fisher, J. Santos Victor, James L. Crowley

2005 - International workshop on Performance evaluation of Tracking and Surveillance