# **Gerard Sanroma**

Bonn (Germany)

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# Summary

- o Strong track record in applied machine learning and computer vision with more than 30 papers in top-tier journals and conferences
- o Inter-disciplinarity and international collaboration by having worked in a breadth of topics including life sciences and defence across 5 different countries
- o Leadership and organization by management of a small team, PhD students supervision and organization of international workshops

# **Professional Experience**

#### **German Center for Neurodegenerative Diseases**

Bonn (Germany)

Senior Researcher

2017-Present

- Organize the MRI group in the Rhineland study and oversee all the steps in the MRI data flow
- Inter-disciplinary collaboration with imaging physicists, epidemiologists, IT-experts and image analysis experts
- Develop advanced tools for analyzing multi-modal brain MRI

#### Universitat Pompeu Fabra

Barcelona (Spain)

Marie Curie Fellow

2015-2017

- Supervise 2 PhD projects on machine learning for the analysis of fetal brain MRI and the study of neurodegenerative diseases
- Clinical collaborations with the Fetal Medicine Research Center and the Pasqual Maragall Foundation

#### **University of North Carolina**

**Chapel Hill (United States)** 

Researcher

2013-2015

- Machine learning for the automatic segmentation of brain MRI
- Netherlands Organisation for Applied Scientific Research The Hague (Netherlands) Researcher

- Machine learning for the automatic detection of threats from video as part of a large international

collaboration project

#### **Education**

#### Ph.D Computer Science

Tarragona (Spain)

Universitat Rovira i Virgili

2008-2012

- Graph matching using position coordinates and local features for image analysis

#### M.Sc Computer Science

Tarragona (Spain)

Universitat Rovira i Virgili

2006-2008

## **Selected Publications**

- SCCA-ref: Novel sparse canonical correlation analysis with reference to discover independent spatial associations between white matter hyperintensities and atrophy, in MLMI MICCAI Workshop, 2018
- Learning Non-Linear Patch Embeddings with Neural Networks for Label Fusion, in Medical Image Analysis, 2017
- o MSClique: discovering multiple structures in image pairs with the maximum weighted clique problem, in PLoS ONE, 2016
- A Transversal approach for patch-based label fusion via matrix completion, in Medical Image Analysis, 2015
- A unified approach to the recognition of complex actions from sequences of zone-crossings, in Image and Vision Computing, 2014

(complete list)

### Certificates, Awards & Mentions

0	Juan de la Cierva Fellowship (Declined) Spanish Ministry of Economy and Finance	2017
0	GPU Titan Pascal X  Nvidia  Support a research project on deep learning for brain MRI segmentation	2016
0	Research Certificate Catalan University Quality Assurance Agency	2016
0	Marie Curie Individual Fellowship  European Commission	2015
0	Editor's Choice article  Image and Vision Computing Journal  G. Sanroma, et al.: A unified approach to the recognition of complex actions from sequence zone-crossings. Image and Vision Computing, 2014; 32(5):363-378	<i>2014</i> ces of

# Service and Leadership

- Workshop Organizer: Patch-based Techniques in Medical Imaging 2017 and 2018
- o **Guest Editor:** Special Issue on Patch-based Techniques in Medical Imaging, in the Computerized Medical and Imaging Graphics Journal

## Languages

Spanish, Catalan: Native

o English: Proficient

o German, French: Threshold