Agnese Tamanti

Current activities

PhD course in Neuroscience, Psychological and Psychiatric Sciences, and Movement Sciences
University of Verona, Department of Neurological, Biomedical and Movement Sciences, Policlinico G.B Rossi, P.le L.A. Scuro, 10, 37134- Verona-Italy
Supervisor prof. Massimiliano Calabrese
Focus of the studies: Neuroimaging with MRI applied to Multiple Sclerosis

Start(2017,10) - end(2020,10)

EDUCATION

Graduated in Bioengineering
(University of Padova)

Start 2015, 01 –End 2017, 04
Final Grade: 105 (over 110)
Final Degree Project: QSM reconstruction combining Structure Tensor of magnitude images and TGV method

Final Degree Project Brief Description: The single-step Total Generalized Variation Quantitative Susceptibility Mapping (TGV-QSM) quantifies the magnetic susceptibility of tissues solving the inverse problem from magnetic field to susceptibility through regularization of MRI phase images. We stabilized the regularization process of the TGV-QSM algorithm incorporating prior information from the linear structure tensor (ST) of magnitude images. The ST-QSM algorithm has been evaluated qualitatively on in-vivo GRE and EPI datasets acquired at 3 and 7 Tesla. The performance has been assessed quantitatively with numerical measures by comparison with multiple orientations reconstruction algorithms. The ST-QSM algorithm yields improvements regarding the visual appearance of the susceptibility maps obtained.
Supervisor: Prof.ssa Bertoldo Alessandra, Prof. Christian Langkammer

First level degree in Biomedical Engineering
(University of Padova)

Start 2011, 09 –End 2014, 11
Final Grade: 102 (over 110)
Final Degree Project: Automatic identification from MRI data of lesions to the hippocampus of Multiple Sclerosis patients.
Supervisor: Prof. Grisan Enrico

High School Diploma in Science and Technology
Liceo Scientifico-Tecnologico A. Serpieri, Rimini (RN), Italy
Start 06, 09 –End 11, 07
Grade: 100 (over 100)

EDUCATIONAL EXPERIENCES

4th international workshop on MRI phase contrast and Quantitative Susceptibility Mapping (Graz, 26-28 Sep. 2016)

Participation to the Erasmus+ program for 1 year

Technical University of Graz, Graz (Austria)
Start 15, 09 –End 16,08

AWARDS

"Biomedical Signal Processing and Imaging" prize of the Italian National Bioengineering Group (GNB) for my master thesis titled "QSM reconstruction combining Structure Tensor of magnitude images and TGV method"

ENGLISH B2

Computer skills

Advanced: Matlab

Intermediate: Microsoft Office

Basic: Python, NumPy,SciPy

ACCEPTED PUBLICATIONS

A. Tamanti, K. Bredies, M. Castellaro, S. Ropele, B. Bilgic, C. Langkammer , *Structure Tensor enhanced Quantitative Susceptibility Mapping,* Abstract accepted for the joint meeting ISMRM-ESMRMB 2018.