

# Emanuele Dalsasso

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<https://perso.telecom-paristech.fr/dalsasso/>

## CURRENT POSITION

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January 2019 – present	<b>PhD student</b> PhD subject: “ <i>Deep Learning for SAR Imagery: from denoising to scene understanding</i> ”, supervised by Florence Tupin and Loïc Denis.	LTCI, Telecom Paris, IMAGES group – IP Paris Doctoral School
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## PROFESSIONAL EXPERIENCE

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March 2018 – August 2018	<b>Internship</b> Internship topic: “ <i>SAR Image Denoising through Convolutional Neural Networks</i> ”, supervised by Florence Tupin and Loïc Denis.	LTCI, Telecom ParisTech, IMAGES group
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## EDUCATION

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September 2016 – October 2018	<b><i>Master’s Degree in Science in Information and Communication Engineering</i></b> (LM-27 – Telecommunications Engineering). The Master is a TWO-years program. The course is offered entirely in English. On <b>10<sup>th</sup> October 2018</b> I passed my degree examination with <b>110 marks out of 110 with honour</b> . Thesis topic: “ <i>SAR Image Denoising Through Convolutional Neural Networks</i> ”, supervised by Lorenzo Bruzzone and Florence Tupin and co-supervised by Loïc Denis.	University of Trento
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September 2013 – July 2016	<b><i>Undergraduate Degree in Electronics and Telecommunications Engineering</i></b> (L-8 – Information Technology). The Undergraduate Degree is a THREE-years program.	University of Trento
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On **18<sup>th</sup> July 2016** I passed my degree examination with **107 marks out of 110**. Thesis topic: “*Soil Moisture Estimation through Support Vector Regression using SAR data*”, supervised by Lorenzo Bruzzone and Begum Demir and co-supervised by Davide Castelletti.

## EXTRACURRICULAR ACTIVITIES

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September 2017 – January 2018	<b>Erasmus scholarship</b> One semester exchange program.	Technical University of Denmark (DTU)
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## AWARDS

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June 2017	<b>Merit Award</b> Since Academic Year 2010-11 the University of Trento annually bestows the Merit Award to students who have achieved remarkable results at the end of their Degree.	University of Trento
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## TECHNICAL SKILLS

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Programming languages and frameworks: *C, C++, Matlab, Python, Tensorflow, LaTeX, macOS*  
Data Science, Signal & Image Processing: *deep learning, remote sensing, synthetic aperture radar, image denoising*

## LANGUAGE SKILLS

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### **Italian**

Native speaker

### **French**

Full professional working proficiency

### **English**

Full professional working proficiency

### **German**

Elementary proficiency (studied in primary and secondary school)

## PUBLICATIONS

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Ilisei, A. M., Khodadadzadeh, M., Dalsasso, E., & Bruzzone, L. (2017, October). Automatic detection of subglacial lakes in radar sounder data acquired in Antarctica. In *Image and Signal Processing for Remote Sensing XXIII* (Vol. 10427, p. 1042718). International Society for Optics and Photonics.

Dalsasso, E., Yang, X., Denis, L., Tupin, F., & Yang, W. (2020). SAR Image Despeckling by Deep Neural Networks: from a pre-trained model to an end-to-end training strategy. *Remote Sensing*, *12*(16), 2636.

Dalsasso, E., Denis, L., & Tupin, F. (2021, March). How to handle spatial correlations in SAR despeckling? Resampling strategies and deep learning approaches. In *EUSAR 2021; 13th European Conference on Synthetic Aperture Radar* (pp. 1-6). VDE.

Dalsasso, E., Denis, L., & Tupin, F. (2021). SAR2SAR: a semi-supervised despeckling algorithm for SAR images. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *14*, 4321-4329.

Gasnier, N., Dalsasso, E., Denis, L., & Tupin, F. (2021). Despeckling Sentinel-1 GRD images by deep learning and application to narrow river segmentation. In *IGARSS 2021; International Geoscience and Remote Sensing Symposium*

Dalsasso, E., Meraoumia, I., Denis, L., & Tupin, F. (2021). Exploiting multi-temporal information for improved speckle reduction of Sentinel-1 SAR images by deep learning. In *IGARSS 2021; International Geoscience and Remote Sensing Symposium*

Denis, L., Dalsasso, E., & Tupin, F. (2021). A review of deep-learning techniques for SAR image restoration. In *IGARSS 2021; International Geoscience and Remote Sensing Symposium*

Rasti, B., Chang, Y., Dalsasso, E., Denis, L., & Ghamisi, P. (2021). Image restoration for remote sensing: Overview and toolbox. *To appear in IEEE Geoscience and Remote Sensing Magazine*.

Dalsasso, E., Denis, L., & Tupin, F. (2021). As if by magic: self-supervised training of deep despeckling networks with MERLIN. *To appear in IEEE Transactions on Geoscience and Remote Sensing*.