

Xiuheng Wang

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Place of birth: 237100, Lu'an, China • Date of birth: 4th Sep. 1996
<https://xiuheng-wang.github.io/>

EDUCATION

Université Côte D'Azur, Nice, France

- Ph.D. in Electrical Engineering / Doctorat Sciences pour L'Ingenieur Jun. 2021 – Jun. 2024
 - Supervisor: Professor Cédric Richard
 - Laboratory: Laboratoire Lagrange (UMR CNRS 7293, Observatoire de la Côte d'Azur)
 - Thesis: Joint Modeling and Learning Approaches for Hyperspectral Imaging and Change Point Detection

Northwestern Polytechnical University, Xi'an, Shaanxi, China

- M.S. in Signal and Information Processing Sep. 2018 – Mar. 2021
- B.S. in Electronic and Information Engineering Sep. 2014 – Jul. 2018

RESEARCH

Research areas: Machine Learning and Signal Processing, in particular,

- Optimization on manifolds
- Change point detection
- Hyperspectral image analysis

PUBLICATIONS

LONG PAPERS

- X. Wang, R. A. Borsoi, C. Richard, "Non-parametric Online Change Point Detection on Riemannian Manifolds", submitted to International Conference on Machine Learning (ICML), 2024.
- X. Wang, R. A. Borsoi, J. Chen, C. Richard, "Deep Hyperspectral and Multispectral Image Fusion with Inter-image Variability", IEEE Transactions on Geoscience and Remote Sensing, 2023.
- X. Wang, J. Chen, C. Richard, "Tuning-free plug-and-play hyperspectral image deconvolution with deep priors", IEEE Transactions on Geoscience and Remote Sensing, 2023.
- X. Wang, J. Chen, Q. Wei, C. Richard, "Hyperspectral image super-resolution via deep prior regularization with parameter estimation", IEEE Transactions on Circuits and Systems for Video Technology, 2022.
- M. Zhao*, X. Wang* (equivalent contribution), J. Chen, W. Chen, "A plug-and-play priors framework for hyperspectral unmixing", IEEE Transactions on Geoscience and Remote Sensing, 2022.
- J. Chen, M. Zhao, X. Wang, C. Richard, S. Rahardja, "Integration of physics-based and data-driven models for hyperspectral image unmixing", IEEE Signal Processing Magazine, 2023.

SHORT PAPERS

- X. Wang, R. A. Borsoi, C. Richard, "Riemannian Diffusion Adaptation over Graphs with Application to Online Distributed PCA", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Seoul, Korea, Apr. 2024.
- X. Wang, R. A. Borsoi, C. Richard, "Distributed Change Point Detection in Streaming Manifold-valued Signals over Graphs", Asilomar Conference on Signals, Systems and Computers (ASILOMAR), Pacific Grove (CA), USA, Oct. 2023.
- X. Wang, R. A. Borsoi, C. Richard, "Online change point detection on riemannian manifolds with Karcher mean estimates", European Signal Processing Conference (EUSIPCO), Helsinki, Finland, Sep. 2023.
- X. Wang, R. A. Borsoi, C. Richard, J. Chen, "Change Point Detection with Neural Online Density-Ratio Estimator", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Rhodes Island, Greece, June 2023.
- X. Wang, R. A. Borsoi, C. Richard, J. Chen, "Deep image fusion accounting for inter-image variability", Asilomar Conference on Signals, Systems and Computers (ASILOMAR), Pacific Grove (CA), USA, Nov. 2022.
- X. Wang, J. Chen, C. Richard "Hyperspectral image super-resolution with deep priors and degradation model inversion", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Singapore, May 2022.

	<ul style="list-style-type: none"> ▪ X. Wang, M. Zhao, J. Chen, "Hyperspectral unmixing via plug-and-play prior", IEEE International Conference on Image Processing (ICIP), United Arab Emirates, Oct. 2020. ▪ X. Wang, J. Chen, C. Richard, D. Brie, "Learning spectral-spatial prior via 3DDNCNN for hyperspectral image deconvolution", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Barcelona, Spain, May 2020. 	
SCHOLARSHIPS & AWARDS	<ul style="list-style-type: none"> ▪ Fully funded PhD scholarships from Université Côte d'Azur, CNRS, OCA ▪ EURASIP Student Travel Grants (€ 750) ▪ GdR ISIS mobility grant (€ 325) ▪ Champion of Grand Challenges on NIR Image Colorization in IEEE VCIP (\$ 1000) 	2021 – 2024 2023 2022 2020
ACADEMIC SERVICE & ACTIVITIES	Reviewer for journals including: <ul style="list-style-type: none"> ▪ IEEE journals: TIP, TCSVT, TCAS-II, OJSP, GRSL ▪ IEEE conferences: ICASSP 	
OTHER WORK EXPERIENCE	CVTE Central Research Institute , Guangzhou, Guangdong, China <ul style="list-style-type: none"> ▪ Research intern in machine vision 	2019 – 2020
LANGUAGES	<ul style="list-style-type: none"> ▪ Chinese: Native language. ▪ English: Fluent (speaking, reading, writing). ▪ French: Elementary. 	
REFERENCES	<ul style="list-style-type: none"> ▪ Professor Cédric Richard Université Côte d'Azur Parc Valrose, 06108 Nice cedex 2, France cedric.richard@unice.fr • +33 04 92 07 63 94 ▪ Professor Jie Chen Northwestern Polytechnical University No.127, Youyi West Road, Xi'an, Shaanxi, China jie.chen@nwpu.edu.cn • +86 152 9186 8961 ▪ Ricardo Augusto Borsoi University of Lorraine Campus Aiguillettes, F-54000 Nancy, France ricardo.borsoi@univ-lorraine.fr • +41 76 505 32 89 	

[CV compiled on 2024-04-08]