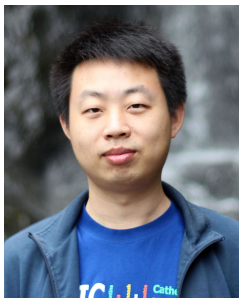
Hanjie **Pan**

Route Cantonale 33
1025 St-Sulpice (VD), Switzerland
Tel: +41 78 879 0742
Email: hanjie.pan@epfl.ch
Skype: ycyzphj
Web: http://lcav.epfl.ch/people/hanjie.pan
GitHub: https://github.com/hanjiepan



Strengths

- Knowledge and experience in signal processing and data analysis
- Ability to analyze and extract model from complicated real world data
- Flexible and a quick learner

Career Interests

Signal processing, image processing, data analytics, time series analysis

Education

Ph.D. in Computer and Communication Sciences **2013 – 2018**
Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

M.Phil. in Electronic Engineering **2010 – 2013**
The Chinese University of Hong Kong (CUHK), Hong Kong

B.Sc. in Electronic Engineering (first honor) **2006 – 2010**
The Chinese University of Hong Kong (CUHK), Hong Kong

Skills

Programming	Python (Numpy/Scipy, sympy, matplotlib, plotly, theano, joblib, pandas), Matlab, Bash scripting, TaQL (SQL), C / C++
Technical Tools	Git, Jupyter, IPython Parallel, Vim, LaTeX, Microsoft Office, Mathematica
Operating Systems	Linux, MacOS, Windows

Experience

Audiovisual communications Laboratory, EPFL **2013 – present**
Research Assistant (advisor: Prof. Martin Vetterli)
Thesis: *Looking beyond pixels: theory, algorithms and applications of continuous sparse recovery*

- 5 years of research experience in designing robust algorithms in signal processing
- Time series analysis in acoustics
- Applications of advanced signal processing techniques to astronomy, microscopy and neurosciences
- Working under pressure with tight deadlines
- Supervising master students in research projects

IBM Research Zürich (6-month internship) **2016 – 2017**
Research Engineer (manager: Dr. Paul Hurley)

- Work in the department of cognitive computing & industry solutions
- Pre-processing vast amount of noisy data from a radio telescope
- Design and implement innovative algorithms for source estimation in radio astronomy

Awards and Honors

IBM Research Award 2019 (nomination)	**2018**
EPFL School of Computer and Communication Sciences fellowship	**2013**
CUHK Graduate School studentship	**2010 – 2012**
Prof. Charles Kao research exchange scholarship	**2010**
CUHK Electronic Engineering Alumni Association Scholarship	**2007, 2008**

Languages

English (full proficiency)
Mandarin Chinese (mother tongue)
Cantonese (work proficiency)
French (basic, A1)

Extracurricular Activities

Alpine skiing, hiking, cycling (a few tours around Lake Geneva)
Subscriber to *Nature* and *The Economist*

Personal Information

Hong Kong citizen, single, Swiss residence permit B

Selected Publications

Journal Articles

[8] **Pan, H.**, Simeoni, M., Hurley, P., Blu, T., Vetterli, M., "LEAP: Looking beyond pixels with continuous-space EstimAtion of Point sources", *Astronomy & Astrophysics*, vol. 608, A136, 2017.

[7] **Pan, H.**, Blu, T., Vetterli, M., "Towards generalized FRI sampling with an application to source resolution in radioastronomy", *IEEE Transactions on Signal Processing*, vol. 65, no. 4, pp. 821–835, 2017.

[6] **Pan, H.**, Blu, T., Dragotti, P.-L., "Sampling curves with finite rate of innovation", *IEEE Transactions on Signal Processing*, vol. 2, pp. 458–471, 2014.

[5] **Pan, H.**, Blu, T., "An iterated linear expansion of thresholds for ℓ_1-based image restoration", *IEEE Transactions on Image Processing*, vol. 22, no. 9, pp. 3715–3728, 2013.

Conference Papers

[4] **Pan, H.**, Scheibler, R., Bezzam, E., Dokmanić, I., Vetterli, M., "FRIDA: FRI-based DOA estimation for arbitrary array layouts", in *2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2017, pp. 3186–3190.

[3] **Pan, H.**, Blu, T., Vetterli, M., "Annihilation-driven localised image edge models", in *2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Brisbane: IEEE, 2015.

[2] **Pan, H.**, Blu, T., "Sparse image restoration using iterated linear expansion of thresholds", in *2011 IEEE International Conference on Image Processing (ICIP)*, Brussels, Belgium, 2011, pp. 1905–1908.

[1] **Pan, H.**, Blu, T., Dragotti, P.-L., "Sampling curves with finite rate of innovation", in *2011 Sampling Theory and Applications (SampTA2011)*, Singapore, 2011.