杨哲乙 (YANG Zheyi)

Gender: Male   **Ethnicity:** Han   **Nationality:** Chinese
Work Address: 828 Boulevard des Maréchaux, Palaiseau, 91120, France
Tel: +33 06 60 65 10 97   **Email:** zheyi.yang@polytechnique.edu   **Homepage:** tapudodo.github.io
Birth place and date: Haikou, Hainan Province, China, 17 July 1995

Ph.D. Student in applied mathematics at ENSTA Paris
Apply for Post-Doc position

Education

10.2020-12.2023 (Expected)	**Ph.D. in applied mathematics at ENSTA Paris**
	Research field: diffusion MRI, Bloch Torrey equation, numerical simulation, estimation method
	Thesis title: Numerical methods to estimate brain micro-structure from diffusion MRI data.
	Coursework: Calculus of variations, Transport optimal, Parallel computing, Numerical technologies and algorithms for boundary element method, Introduction to medical imaging
	Advisor: Dr. Jing-Rebecca LI
09.2017-07.2020	**Master and Diplôme d'ingénieur in École Centrale de Pékin, Beihang University**
	Major: Electromagnetism and microwave engineering GPA: 82/100
	Research field: Microstrip filter design, Dielectric resonator antenna design, plan wave generator optimization (complex value optimization)
	Thesis title: Research and Design of Wideband Multi-Beam Circular Polarized Dielectric Resonant Antenna Array
09.2016-02.2017	**Exchange study in Université Libre de Bruxelles, Belgium for one semester**
	Major: Electric and electronic engineering. China Scholarship Council Scholarship (CSC)
09.2013-07.2017	**Bachelor in École Centrale de Pékin, Beihang University**
	Major: Mathematics and applied mathematics GPA: 83/100

Publication and Patent

2023.08	**Journal article, IEEE Transactions on Medical Imaging (Under review)**
	Title: SpinDoctor-IVIM: An in-silico imaging framework for intravoxel incoherent motion MRI (2nd author)
2023.08	**Journal article, Medical Image Analysis (Under review)**
	Title: A simulation-driven supervised learning framework to estimate brain-microstructure using diffusion MRI (2nd author)
2023.08	**Journal article, Physics in Medicine and Biology**
	Title: Incorporating interface permeability into the diffusion MRI signal representation while using impermeable Laplace eigenfunctions (1st author). DOI: 10.1088/1361-6560/acf022
2023.03	**Conference talk, SIAM CSE2023**
	Title: Morphological parameter estimation of neuron using a machine learning algorithm on diffusion MRI data (1st author)
2022.09	**Journal article, Mathematics In Action**
	Title: Asymptotic models of the diffusion MRI signal accounting for geometrical deformations (1st author)
2021.06	**Conference article, ASME Turbo Expo 2021**
	Title: Constraint handling in Bayesian optimization – A comparative study of support vector machine, augmented Lagragian and expected feasible improvement (2nd author) DOI: https://doi.org/10.1115/GT2021-58562
2020.09	**Journal article, IEEE Access**
	Title: Robust Plane Wave Generator Design in Small Anechoic Chamber Setup Using Parameterized Field Method (1st author) DOI: 10.1109/ACCESS.2020.3029265
2020.02	**Conference article, ASME Turbo Expo 2020**
	Title: Prediction of non-linear mechanical behavior with deep neural network-application on low pressure turbine disc (3rd author) DOI: 10.1115/GT2020-14382
2019.04	**Conference article, European Association on Antennas and Propagation (Eucap2019)**
	Title: Wideband circularly polarized coplanar waveguide fed rectangular frustum dielectric resonator antenna (1st author)
2017.08	**Patent, Configurable band-pass filter based on liquid metal, Microwave engineering Lab, Beihang University**
	A bandpass filter whose resonant frequency can be changed by changing the coupling line (in liquid metal) length.

Prize

2019.09	**2019-2020 Beihang University Academic Scholarship**	**First prize**
2018.09	**2018-2019 Beihang University Academic Scholarship**	**First prize**
2016.09	**Beihang 'Fengru' Innovation Competition**	**Third prize**
	Project: Portable solar charge system (5 members)	

Intern Experience

2019.05-2019.11	**BSS TurboTech Ltd, joint-company of Safran Aircraft Engine (Snecma) and AECC SI Last year of Master internship, numerical optimization algorithm**
	Tasks: Bayesian optimization for turbine design, codes implementation and comparative analysis; Reinforcement learning model implementation
2016.06-2016.08	**High Frequency and High Voltage Center, Institute of Microelectronics of Chinese Academy of Sciences Production intern**
	Tasks: Solar panel encapsulation

Language	Skills	Hobbies
Chinese: Native, English: TOEFL 98(r:29 l:27 s:19 w:23), French: TCF B2	MATLAB, Python(Pytorch,Flask), Julia	Films, Swimming, Tennis