Chen-Zhu Xie   谢尘竹

Portfolio:
Contact:
Scholar:
Personality: INTP AB

Education

Degree	Major	Credential (Outer)	Masterpiece (Inner)	Grad.
Doctor of Philosophy	Optical Engineering	🌐 Q.E. - Top 15% ▶	Nonlinear Fourier Optics	27' 2025
└ **Thesis** - Analytic 3D vectorial linear non-uniform & nonlinear Fourier crystal optics in arbitrary $\bar{\bar{\varepsilon}}, \bar{\bar{\chi}}$ dielectrics ┘				
Master 's Studies	Quantum Electronics	Courses Score - 93.5	THz ($> 6G$) OAM Source	24' 2022
└ **Affiliation** - **College** of Engineering and Applied Sciences, Nanjing **University**, No.163 Xianlin **Avenue**, Nanjing, Jiangsu, China ┘				
Bachelor of Science	Applied Physics	🌐 GPA Rank - 1/400	DDTank Auxiliary Tools ▶	22' 2020
└ **Thesis** - Research & design of nonlinear holography based on lithium niobate 3D nonlinear photonic crystal ▶ ┘				
Freshman in University	Science	Sichuan Prov. - Top 2%	7 Notes → 3 Books	18' 2016
└ **Affiliation** - **School** of Physics, **College** of Science, Northeastern **University**, No.3-11 Wenhua **Road**, Shenyang, Liaoning, China ┘				

Academic Focus

2024.06   **Next generation** high N.A. 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics $\mathbf{O}$

2024.03   !Paraxial $k_0^\omega \Rightarrow$ **High N.A.** 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics $\mathbf{O}$

2023.12   Emphasizing $G_{\mathrm{xyz}}^\omega \Rightarrow$ **3D** vector non-uniform analytic linear & nonlinear Fourier crystal optics $\mathbf{O}$

2023.06   Involving $\bar{\bar{\chi}}_\omega^{(2)}$ anisotropy $\Rightarrow$ **Vector** non-uniform analytic linear & nonlinear Fourier crystal optics $\mathbf{O}$

2023.03   !Unitary $G_\omega^\pm \Leftarrow$!Hermitian $\bar{\bar{\varepsilon}}_{\mathrm{r}}^\omega \Rightarrow$ **Non-uniform** analytic linear & nonlinear Fourier crystal optics $\mathbf{O}$

2022.09   Solution $\mathcal{F}\left[E_\omega^\pm\right]$ to $\left(\nabla^2 + k_{\omega\pm}^2\right)E_\omega^\pm \propto P_{\omega\pm}^{(2)} \Leftrightarrow$ **Analytic** linear & nonlinear Fourier crystal optics $\mathbf{O}$

2022.06   Solution $\mathcal{F}\left[E_3\right] = \mathcal{F}\left[f\left(\mathcal{F}^{-1}\left[\cdot\right]\right)\right]$ to the Eq. below $\Leftrightarrow$ **Nonlinear** angular spectrum theory for SFG $\mathbf{O}$

2022.03   Solution $\mathcal{F}\left[E_3\right] = \iiint$ to $\left(\nabla^2 + k_3^2\right)E_3\left(r\right) \propto P_3^{(2)}\left(r\right) \Leftrightarrow$ **Nonlinear** convolution solution to SFG $\mathbf{O}$

Teaching

- **Head Teaching Assistant** at University Name ⟶ Spring 2019
  Course Name (COURSE CODE)
- **Teaching Assistant** at University Name ⟶ Spring 2017
  Course Name (COURSE CODE)

Skills

- **Skill Group:** List of technologies
- **Skill Group:** List of technologies
- **Skill Group:** List of technologies
- **Skill Group:** List of technologies

Languages

- **Language:** language proficiency level
  - **EXAM:** details
- **Language:** language proficiency level
- **Language:** language proficiency level

Projects

See full list of projects on example.com/projects

- Project Title (Technology Used, 2019)
  Short explanation of the project
- Project Title (Technology Used, 2019)
  Short explanation of the project

Honors & Awards

Academic Awards			
	ⓞ Excellent Bachelar Dissertation	Northeastern University	2020.06
Honorary Titles	ⓞ Excellent League Member	Northeastern University	2019.11
Lane	0.135	0.855	1

Honorary Titles

2019.11	Excellent League Member of ⓞ	Northeastern University
2018.12	Excellent Undergraduate Student of ⓞ	Northeastern University

Competition Awards

2019.11	Excellent League Member ⓞ	Northeastern University
2018.06	Excellent Undergraduate Student ⓞ	Northeastern University

Scholarships Fellowships

2019.04	JinChuan 1st scholarship - 5,000 rmb ⌂	Northeastern University
2018.06	1st scholarship - 2,000 rmb ⌂	Northeastern University

Extracurricular Activities

- Member at Some Club — 2017–Current
  Detailed explanation of what you do at this club
- Member at Some Club — 2016–2017
  Detailed explanation of what you do at this club
- Volunteer at Some Event — Fall 2019
  Detailed explanation of what you do in this event
- Volunteer at Some Event — Winter 2015
  Detailed explanation of what you do in this event