Chen-Zhu Xie 谢尘竹

Portfolio: 🐙 ▶️ in
Contact: ✉️ 𝕏
Scholar: iD g
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 $\bar{\bar{\varepsilon}}, \bar{\bar{\bar{\chi}}}$ 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 College	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 ⬡
2024.03	!Paraxial $k_0^\omega \Rightarrow$ **High N.A.** 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics ⬡
2023.12	Emphasizing $G_{\mathrm{xyz}}^\omega \Rightarrow$ **3D** vector non-uniform analytic linear & nonlinear Fourier crystal optics ⬡
2023.06	Involving $\bar{\bar{\chi}}_\omega^{(2)}$ anisotropy $\Rightarrow$ **Vector** non-uniform analytic linear & nonlinear Fourier crystal optics ⬡
2023.03	!Unitary $G_\omega^\pm \Leftarrow$!Hermitian $\bar{\bar{\varepsilon}}_{\mathrm{r}}^\omega \Rightarrow$ **Non-uniform** analytic linear & nonlinear Fourier crystal optics ⬡
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 ⬡
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 ⬡
2022.03	Solution $\mathcal{F}\left[E_3\right] = \iiiint$ 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 ⬡

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

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  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