## Chen-Zhu Xie

# 谢尘竹

Portfolio: 🗘 🔼 in

Contact:  ${\color{red} igstyle {\mathbb{X}}}$ 

Scholar: 🕩 🎖

Personality: **(1)** INTP AB

#### **EDUCATION**

Degree	Major	Credential (Outer)	Masterpiece (Inner)	Grad. 🕒		
Doctor of Philosophy	Optical Engineering	<b>②</b> Q.E Top 15%	Nonlinear Fourier Optics 🗘	27' 2025		
<b>Thesis</b> - Analytic 3D vectorial linear non-uniform & nonlinear Fourier crystal optics in arbitrary $\bar{\bar{\varepsilon}}, \bar{\bar{\chi}}$ dielectrics $\Box$						
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	<b>(1)</b> 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 $\rightarrow$ 3 Books $\bigcirc$	18' 2016		
Affiliation - School of Physics, College of Science, Northeastern University, No.3-11 Wenhua Road, Shenyang, Liaoning, China						

#### ACADEMIC FOCUS

Next generation high N.A. 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics •	2024.06
193 Paraxial $k_0^\omega \Rightarrow $ <b>High N.A.</b> 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics $\blacksquare$	2024.03
12 Emphasizing $G^{\omega}_{\mathrm{xyz}} \Rightarrow$ 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics $lacksquare$	2023.12
Involving $\bar{\bar{\chi}}^{(2)}_{\omega}$ anisotropy $\Rightarrow$ <b>Vector</b> non-uniform analytic linear & nonlinear Fourier crystal optics $\bigcirc$	2023.06
103 !Unitary $G_{\omega}^{\pm} \Leftarrow$ !Hermitian $\bar{\bar{\varepsilon}}_{\mathrm{r}}^{\omega} \Rightarrow \mathbf{Non\text{-}uniform}$ analytic linear & nonlinear Fourier crystal optics $\mathbf{Q}$	2023.03
Solution $\mathcal{F}\left[E_{\omega}^{\pm}\right]$ to $\left(\mathbf{\nabla}^{2}+k_{\omega\pm}^{2}\right)E_{\omega}^{\pm}\propto P_{\omega\pm}^{(2)}\Leftrightarrow$ Analytic linear & nonlinear Fourier crystal optics $\mathbf{Q}$	2022.09
Solution $\mathcal{F}[E_3] = \mathcal{F}[f(\mathcal{F}^{-1}[\cdot])]$ to the Eq. below $\Leftrightarrow$ <b>Nonlinear</b> angular spectrum theory for SFG $\bigcirc$	2022.06
Solution $\mathcal{F}[E_3] = \iiint \text{to} (\nabla^2 + k_3^2) E_3(r) \propto P_3^{(2)}(r) \Leftrightarrow \text{Nonlinear convolution solution to SFG}$	2022.03

#### **TEACHING**

• **Head Teaching Assistant** at University Name Course Name (COURSE CODE)

Spring 2019

• Teaching Assistant at University Name

Spring 2017

Course Name (COURSE CODE)

Skills Languages

• **Skill Group:** List of technologies

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• 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

Honorary Titles Lane C Excellent Bachelar Dissertation

C Excellent League Member

0.135

Northeastern University

Northeastern University

University 2019.11

0.855

1

2020.06

#### HONORARY TITLES

2019.11 Excellent League Member of  $\bigcirc$  2018.12 Excellent Undergraduate Student of  $\bigcirc$ 

Northeastern University

Northeastern University

#### **COMPETITION AWARDS**

2019.11 Excellent League Member **Q**2018.06 Excellent Undergraduate Student **Q** 

Northeastern University 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	