## Chen-Zhu Xie

# 谢尘竹

Portfolio: ♠ in

Contact: ▼ X

Scholar: D 💯

Preference: 6

Personality: 1 INTP AB

## **EDUCATION**

Degree	Major	Credential (Outer)	Masterpiece (Inner)	Grad. 🕒		
Doctor of Philosophy	Optical Engineering	<b>Q.E.</b> - Top 15%	Nonlinear Fourier Optics 😯	2025 '27		
$igspace$ Thesis - Analytic 3D vectorial linear non-uniform & nonlinear Fourier crystal optics in arbitrary $ar{ar{arepsilon}}, ar{ar{ar{\chi}}}$ dielectrics $oldsymbol{\Omega}$						
Master 's Studies	Quantum Electronics	Courses Score - 93.5 😱	THz (> 6G) OAM Source 😯	2022 '24		
Bachelor of Science	Applied Physics	<b>③</b> GPA Rank - 1/400 <b>⑤</b>	DDTank Auxiliary Tools D	2020 '22		
L 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 😯	2016 '18		
□ 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
!Paraxial $k_0^\omega \Rightarrow $ High N.A. 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics $m{f Q}$	2024.03
Emphasizing $G^\omega_{ ext{xyz}} \Rightarrow$ 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics $oldsymbol{igcap}$	2023.12
Involving $\bar{ar\chi}^{(2)}_\omega$ anisotropy $\Rightarrow$ <b>Vector</b> non-uniform analytic linear & nonlinear Fourier crystal optics $m{\Omega}$	2023.06
!Unitary $G^\pm_\omega \Leftarrow$ !Hermitian $ar{ar{arepsilon}}^\omega \Rightarrow  extbf{Non-uniform}$ analytic linear & nonlinear Fourier crystal optics $oldsymbol{ar{Q}}$	2023.03
Solution $\mathcal{F}\left[m{E}_{\omega}^{\pm}\right]$ to $\left(m{\nabla}^{2}+k_{\omega\pm}^{2}\right)m{E}_{\omega}^{\pm}\proptom{P}_{\omega\pm}^{(2)}\Leftrightarrow$ Analytic linear & nonlinear Fourier crystal optics $m{\Omega}$	2022.09
Solution $\mathcal{F}\left[E_{3}\right]=\mathcal{F}\left[f\left(\mathcal{F}^{-1}\left[\cdot\right]\right)\right]$ to the Eq. below $\Leftrightarrow$ <b>Nonlinear</b> angular spectrum theory for SFG $\P$	2022.06
Solution $\mathcal{F}\left[E_{3}\right]=\iiint$ to $\left(\mathbf{\nabla}^{2}+k_{3}^{2}\right)E_{3}\left(r\right)\propto P_{3}^{\left(2\right)}\left(r\right)\Leftrightarrow$ <b>Nonlinear</b> convolution solution to SFG $\mathbf{Q}$	2022.03

#### **TEACHING**

• **Head Teaching Assistant** at University Name

Spring 2019

Course Name (COURSE CODE)

• Teaching Assistant at University Name

Course Name (COURSE CODE)

Spring 2017

#### **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

A 1 .	Doctor's Qualification Exam (Oral)	<b>&gt;</b>	Excellent	<b>(</b>	Top 15%	Nanjing	U.	2024.01
Academia	Bachelar Dissertation 🗘 & Defense	<b>&gt;</b>	Excellent	0	1/90	Northeaster	rn U.	2020.06
Competition	Three Provinces Achievement Expo		Exhibition	0	Leader	Three	Prov.	2019.10
	"Challenge Cup" Tech Competition		Grand prize	e (7)	Leader	Liaoning	Prov.	2019.06
Scholarships & Fellowships	Academic Fellowship		1st class		¥40,000	Nanjing	U.	2020-24
	"Jinchuan" Scholarship		1st place	0	¥5,000	Northeaster	rn U.	2019.04
	Academic Scholarship		1st place	()	¥2,000	Northeaster	rn U.	2018.06
	Entrance Scholarship		3rd place		¥5,000	Leshan No.	1 H.S.	2013.09
Honors	Graduation with honor		Outstanding			Northeaster	rn U.	2020.07
&	League Member		Excellent	0		Northeaster	rn U.	2019.11
Titles	Undergraduate Student		Excellent	0		Northeaster	rn U.	2018.12
Memberships	Chinese Society for Optical Engineerin	ng	Member	0		Nanjing	U.	2018.12

#### Extracurricular Activities

Member at Some Club
 2017-Current

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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	
	Detailed explanation of what you do at this club  Volunteer at Some Event  Detailed explanation of what you do in this event  Volunteer at Some Event

Detailed explanation of what you do at this club