Chen-Zhu Xie 谢尘竹

Portfolio:
Contact:
Scholar:
Personality: INTP

EDUCATION

Masterpiece (Inner)	Major	Degree	Credential (Outer)	University - QS	Grad.
Nonlinear Fourier Optics	Optical Engineering [1]	Ph.D.	Q.E. - Top 15%	Nanjing U. - 140	27' 2025
THz (> 6G) OAM Source	Quantum Electronics	Master	Courses Score - 93.5	Nanjing U. - 140	24' 2022
DDTank Auxiliary Tools	Applied Physics [2]	Bachelar	GPA Rank - 1/400	Northeastern U.	22' 2020
7 Notes $\rightarrow$ 3 Books	Science	Awaken	Sichuan Prov. - Top 2%	Leshan No.1 H.S.	18' 2016

[1] **Thesis** - Analytic 3D vectorial linear non-uniform & nonlinear Fourier crystal optics in arbitrary $\bar{\bar{\varepsilon}}, \bar{\bar{\chi}}$ dielectrics

[2] **Thesis** - Research & design of nonlinear holography based on lithium niobate 3D nonlinear photonic crystal

EXPERIENCE

2024.06	**Next generation** high N.A. 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics
2024.03	Tightly focus $\Rightarrow$ **High N.A.** 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics
2023.12	Stressing z-component $\Rightarrow$ **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 $\boldsymbol{G}_{\omega}^{\pm} \Leftarrow$!Hermitian $\bar{\bar{\varepsilon}}_{\mathrm{r}}^{\omega} \Rightarrow$ **Non-uniform** analytic linear & nonlinear Fourier crystal optics
2022.09	Solution $\mathcal{F}\left[\boldsymbol{E}_{\omega}^{\pm}\right]$ to $\left(\boldsymbol{\nabla}^2 + k_{\omega\pm}^2\right)\boldsymbol{E}_{\omega}^{\pm} \propto \boldsymbol{P}_{\omega\pm}^{(2)} \Leftrightarrow$ 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 $\mathcal{F}\left[E_3\right] = \iiint$ to $\left(\boldsymbol{\nabla}^2 + k_3^2\right)E_3\left(\boldsymbol{r}\right) \propto P_3^{(2)}\left(\boldsymbol{r}\right) \Leftrightarrow$ 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
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Languages

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

Scholarships and Awards

- Some Scholarship   2018–2020
- Some Award   2018
- Some Award   2017
- Some Award   2016
- Some Scholarship   2013–2018
- Some Scholarship   2013–2018
- Some Award   2013

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