Chen-Zhu Xie 谢尘竹

Portfolio:
Contact:
Scholar:
Personality: INTP AB

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 ⟶ 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 $\bar{\bar{\varepsilon}}, \bar{\bar{\bar{\chi}}}$ 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 ⇒ **High N.A.** 3D vector non-uniform analytic linear & nonlinear Fourier crystal optics

2023.12 Stressing z-component ⇒ **3D** vector non-uniform analytic linear & nonlinear Fourier crystal optics

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

2023.03 !Unitary $\boldsymbol{G}_{\omega}^{\pm}$ ⇐ !Hermitian $\bar{\bar{\varepsilon}}_{\mathrm{r}}^{\omega}$ ⇒ **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 ⇔ Nonlinear angular spectrum theory for SFG

2022.03 Solution $\mathcal{F}\left[E_3\right] = \iint\!\!\iint$ 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
- **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

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

Detailed explanation of what you do in this event