# Yue Yu

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# RESEARCH INTEREST

Integrated photonic circuits, optomechanics, micro- and nanoelectromechanics, surface acoustic waves, bound states in the continuum, nonlinear photonics, metasurfaces

#### **BACKGROUND**

09/2017-present	Ph.D., Electronic Engineering, The Chinese University of Hong K	Kong GPA: 3.27/4.00
11/2016-05/2017	Research assistant, The Chinese University of Hong Kong	TOEFL: 89 IELTS: 7.0
09/2013-06/2017	B.S., Optical and Electronic Information, Huazhong University	of Science and Technology,
	China	GPA: 90 27/100 17/341

#### HONORS AND AWARDS

2021	Best Paper Award-First Runner Up, 21st IEEE Photonics Society (HK) Postgraduate Conference
2016	"Shangguang Elite Class" Scholarship
2015	National Encouragement scholarship
2014	National Scholarship
2013	Freshman Scholarship

## **PROFESSIONAL ACTIVITIES**

#### **♦** Journal reviewer

- Optics Express
- Journal of Lightwave Technology
- Journal of the Optical Society of America B

### **PUBLICATIONS**

# Journal Papers († denotes co-first authors)

- 1. Zejie Yu, He Gao, Yi Wang, <u>Yue Yu</u>, Hon Ki Tsang, Xiankai Sun, and Daoxin Dai, "Fundamentals and applications of photonic waveguides with bound states in the continuum," 2023. (submitted)
- 2. <u>Yue Yu</u> and Xiankai Sun, "Surface acoustic microwave photonic filters on etchless lithium niobate integrated platform," 2022. (<u>submitted</u>)
- 3. <u>Yue Yu</u> and Xiankai Sun, "Etchless photonic integrated circuits enabled by bound states in the continuum: tutorial," Journal of the Optical Society of America B, 2023. (accepted)
- 4. Xiao-Jing Liu<sup>†</sup>, <u>Yue Yu<sup>†</sup></u>, Di Liu, Qi-Long Cui, Xiao-Zhuo Qi, Yang Chen, Guang-Yuan Qu, Li Song, Guo-Ping Guo, Guang-Can Guo, and Xiankai Sun, Xi-Feng Ren, "Coupling of Photon Emitters in Monolayer WS<sub>2</sub> with a Photonic Waveguide Based on Bound States in the Continuum," <u>Nano Letters 23 (8): 3209–3216</u>, Apr. 2023.
- Yuan Li, Zunyue Zhang, Yi Wang, <u>Yue Yu</u>, Xuetong Zhou, Hon Ki Tsang, and Xiankai Sun, "Inverse-designed linear coherent photonic networks for high-resolution spectral reconstruction," <u>ACS Photonics</u>, Jan. 2023. DOI: 10.1021 [featured as cover article]
- 6. <u>Yue Yu</u>, Xiang Xi, and Xiankai Sun, "Observation of mechanical bound states in the continuum in an optomechanical microresonator," *Light: Science & Applications* 11, 328, Nov. 2022.
- 7. <u>Yue Yu<sup>†</sup></u>, Zejie Yu<sup>†</sup>, Zunyue Zhang<sup>†</sup>, Hon Ki Tsang, and Xiankai Sun, "Wavelength-division multiplexing on etchless lithium niobate integrated platform," *ACS Photonics* 9 (10): 3253–3259, Oct. 2022.
- 8. Huade Mao<sup>†</sup>, <u>Yue Yu<sup>†</sup></u>, Yu-Xuan Ren, Ka Yan Chan, Jiqiang Kang, Xiankai Sun, Edmund Y. Lam, and Kenneth K. Y. Wong, "Neural optimizer for inverse design of complex-modulated hologram implemented by plasmonic metasurfaces," *Advanced Photonics Research* 4 (1): 2200085, Jan. 2023.

- 9. Fan Ye, <u>Yue Yu</u>, Xiang Xi, and Xiankai Sun, "Second-harmonic generation in etchless lithium niobate nanophotonic waveguides with bound states in the continuum," <u>Laser & Photonics Reviews</u> 16: 2100429, <u>Mar.</u> 2022.
- 10. <u>Yue Yu</u>, Lai Wang, and Xiankai Sun, "Demonstration of on-chip gigahertz acousto-optic modulation at near-visible wavelengths," *Nanophotonics* 10 (17): 4323–4329, Dec. 2021.
- 11. <u>Yue Yu</u>, Zejie Yu, Lai Wang, and Xiankai Sun, "Ultralow-loss etchless lithium niobate integrated photonics at near-visible wavelengths," *Advanced Optical Materials* 9 (19): 2100060, Oct. 2021.
- 12. Huade Mao<sup>†</sup>, Yu-Xuan Ren<sup>†</sup>, <u>Yue Yu<sup>†</sup></u>, Zejie Yu, Xiankai Sun, Shuang Zhang, and Kenneth K. Y. Wong, "Broadband meta-converters for multiple Laguerre-Gaussian modes," <u>Photonics Research 9 (9):1689–1698, Sep. 2021</u>.
- 13. <u>Yue Yu</u>, Zejie Yu, and Xiankai Sun, "Nonmetallic broadband visible-light absorbers with polarization and incident angle insensitivity," *IEEE Photonics Journal* 12 (6): 2200807, Dec. 2020.

#### Conference Papers

- 1. <u>Yue Yu</u> and Xiankai Sun, "Surface acoustic microwave photonic filters on etchless lithium niobate integrated platform," CLEO 2023, San Jose, CA, USA, May 2023.
- Yuan Li, Zunyue Zhang, Yi Wang, <u>Yue Yu</u>, Xuetong Zhou, Hon Ki Tsang, and Xiankai Sun, "Inverse-designed linear coherent photonic networks for high-resolution spectral reconstruction," CLEO 2023, San Jose, CA, USA, May 2023.
- 3. <u>Yue Yu</u>, Xiang Xi, and Xiankai Sun, "Observation of mechanical bound states in the continuum in an optomechanical microresonator," Frontiers in Optics 2022, Rochester, NY, USA, Oct. 2022. [postdeadline]
- 4. <u>Yue Yu<sup>†</sup></u>, Zejie Yu<sup>†</sup>, Zunyue Zhang<sup>†</sup>, Hon Ki Tsang, and Xiankai Sun, "Wavelength-division multiplexing on etchless lithium niobate integrated platform," **Frontiers in Optics 2022**, Rochester, NY, USA, Oct. 2022.
- 5. <u>Yue Yu</u>, Zejie Yu, Lai Wang, and Xiankai Sun, "Ultralow-loss etchless lithium niobate integrated photonics at near-visible wavelengths," *CLEO 2022*, San Jose, CA, USA, May 2022.
- 6. Fan Ye, <u>Yue Yu</u>, Xiang Xi, and Xiankai Sun, "Second-harmonic generation in etchless lithium niobate nanophotonic waveguides with bound states in the continuum," *CLEO 2022*, San Jose, CA, USA, May 2022.
- 7. <u>Yue Yu</u>, Zejie Yu, and Xiankai Sun, "Etchless lithium niobate integrated photonics," *International Symposium on Lithium Niobate Optoelectronics 2021*, Shanghai, China, Oct. 2021. [invited]
- 8. <u>Yue Yu</u>, Zejie Yu, and Xiankai Sun, "Nonmetallic broadband visible-light absorbers with polarization and incident angle insensitivity," *CLEO 2021*, San Jose, CA, USA, May 2021.
- 9. <u>Yue Yu</u>, Lai Wang, and Xiankai Sun, "Demonstration of on-chip gigahertz acousto-optic modulation at near-visible wavelengths," *CLEO 2021*, San Jose, CA, USA, May 2021.