



Photorefractive Photonics and Beyond 2026 | PR'26

August 14-18, 2026, Xi'an Guangcheng Hotel, Xi'an, China

The Photorefractive Photonics and Beyond 2026, hosted by Nankai University and Northwestern Polytechnical University and co-organized by Xi'an Laser and Infrared Society, will be held in Xi'an, Shaanxi, China. The conference will provide a platform for presentations on traditional themes in photorefractive photonics as well as a broad range of related photonic topics.

Scientific Topics

- **Photorefractive and hybrid materials:**
Inorganic, organic and hybrid materials for photorefraction and nonlinear optics; crystals, liquid crystals, polymers, nonlinear fibers, gain media; organic semiconductors, perovskites.
- **Nonlinear light-matter interaction and applications:**
wave mixing, ultrafast processes, beam propagation dynamics, solitons, light beam interactions, frequency conversion (UV, VIS, IR, THz), optical limiting and modulation, self-organization and spatio-temporal dynamics, nonlinear plasmonics.
- **Materials micro- and nano-engineering:**
Ferroelectric domain patterning, microfabrication techniques, waveguides, resonators, metasurfaces and metamaterials, thin films, quantum dots, plasmonic structures, diffraction gratings.
- **Holography, optical and signal processing and imaging:**
Dynamic wavefront sensing, image processing, digital holography, displays, photon-correlation techniques, photoacoustics, electrooptics, spatial light modulation, adaptive optics. All-optical signal processing, data storage, analog computing. Integrated optical devices. Applications in astrophotonics, biophotonics, etc.
- **Fundamentals and novel applications of charge and exciton generation and transport:**
microscopic modelling, self-localized charge states, bulk photovoltaic effect and photoferroelectrics.
- **Intelligent photonics:**
AI-driven photonic design, photonic neural networks, reconfigurable PICs, inverse device design, AI-optimized metasurfaces, intelligent optical sensing, photonic AI accelerators, adaptive beam shaping, photonics-neuromorphic integration, intelligent quantum photonics, smart optical modulators/switches.

- **Optical and optoelectronic manipulation:**
optical and photovoltaic tweezers, optofluidics, droplet manipulation. Nanoparticle trapping and patterning, photocatalysis.
- **Green photonics:**
Ferroelectrics and photovoltaics. Photorefractive and hybrid platforms for addressing environmental challenges. Water and air pollutant sensing: detection and manipulation of micro- and nano-plastics, heavy metals, micro-organisms, etc.

Important dates

- ✓ Abstract submission deadline: May 31, 2026
- ✓ Notification of acceptance: June 10, 2026
- ✓ Early bird registration deadline: June 30, 2026
- ✓ Onsite registration: August 14-18, 2026

Local organizing committee

Jingjun Xu (Chair),	Nankai University
Jianlin Zhao (Co-Chair),	Northwestern Polytechnical University
Guoquan Zhang,	Nankai University
Dong Mao,	Northwestern Polytechnical University
Xinzheng Zhang,	Nankai University
Wending Zhang,	Northwestern Polytechnical University

Sponsorship

Nankai University
Northwestern Polytechnical University
Xi'an Laser and Infrared Society
..... more will be announced

Conference website: <https://physics.nankai.edu.cn/PR26/list.htm>
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