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Celebrating one year of npj Nanophotonics—reflecting on achievements and looking forward

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As we celebrate the first anniversary of *npj Nanophotonics* opening for submissions, it is both a time to reflect on our progress and look forward to the future.

A nanophotonics journal with a purpose

A fundamental task for a new journal is to define the role it will play in serving the research community. Particularly in fields already served by many excellent journals, such as nanophotonics, why establish a new one?

npj Nanophotonics was created as a dedicated platform that promptly publishes and disseminates significant advancements in nanophotonics to the global community. Our focused scope allows the journal to match the rapid pace at which innovations in nanophotonics occur. As a fully open-access journal, all the content that we publish is immediately available to our global readership.

Within the nanophotonics field, there is a growing need to close the gap between academic research and practical, commercial applications. By focusing on both fundamental breakthroughs and their technological application, *npj Nanophotonics* provides a unique conduit for transforming lab-based research into industrial innovations. This is critical in a field that has the potential to revolutionize sectors like computing, communications, healthcare, and energy. Hence, we encourage the participation of industry leaders in the editorial process, and as contributors, to bridge the current gap between academic research and industry needs. This interaction not only enriches the research articles published by *npj Nanophotonics* with practical insights but also helps the industry to stay at the cutting edge of technology by leveraging academic innovations.

npj Nanophotonics aims to create a focused community of researchers, entrepreneurs, and industry professionals. Our community-centered approach nurtures a collaborative environment



Image 1: *npj Nanophotonics* editor-in-chief Prof. Baohua Jia (left) met *Nature Photonics* editor Dr. Rachel Won (right) in Asia Light Conference, Singapore.

where ideas and challenges can be shared and addressed collectively. Establishing a dedicated platform for this exchange enhances the development of solutions that are both innovative and practical, encouraging a quicker transition from the bench to application.

Further, *npj Nanophotonics* plays a unique role in connecting the *Nature Portfolio* with our community. As part of the *npj series*, the journal is driven editorially by active researchers in the community. Yet we benefit also from close relationships with the professional editors of *Nature*, *Nature Photonics*, and *Nature Communications*, to name a few. We anticipate opportunities for collaboration across journals as we champion the nanophotonics community within the *Nature Portfolio*.

By the community, for the community

The editors of *npj Nanophotonics* are part of your community. Our editorial team comprises of esteemed scientists from around the globe, each bringing a wealth of knowledge and expertise in various sub-disciplines of nanophotonics. This diverse team ensures a rich and balanced editorial approach, capable of addressing the multifaceted

nature of our field. We have built an editorial team that is committed to maintaining the highest standards of integrity and scientific rigor, ensuring that only significant and reliable studies are shared with our community.

We are committed to publishing high-quality, peer-reviewed research that pushes the boundaries of light-matter interaction at the nanoscale. Our scope encompasses a broad array of topics within nanophotonics including, but not limited to, photonic and plasmonic metamaterials and nanostructures, topological photonics, 2D and layered photonic materials and structures, and the design, fabrication, and application of nanophotonic devices. We aim to be at the forefront of innovations that can lead to revolutionary advances, applications, and impacts in sustainability, computing, communications, and health.

On March 6, 2024, we saw the results of ten months of hard work from our entire team, including dedicated authors and referees, when we published our first papers. These initial publications demonstrate the breadth of nanophotonics research. Firstly, López Carreño et al. report fundamental research exploring a novel source of entangled photons derived from



Image 2: *npj Nanophotonics* editors are distributed all over the globe.



Image 3: *npj Nanophotonics* editors (left to right: Prof. Guangwei Hu, Prof. Baohua Jia, Prof. Wei Li) gather at Asia Light Conference, Singapore.

resonance fluorescence¹. Secondly, the first waveguide-coupled silicon single-photon avalanche diode operating at room temperature and integrated within a silicon photonics platform is presented²— a crucial step towards real-world use. Finally, nanophotonics reaches applications in two studies demonstrating the imaging power of a compact meta-microscope³ and a deep-learning method⁴.

A bright future

Looking ahead, *npj Nanophotonics* is committed to expanding its contributions to the scientific community by embracing more interdisciplinary studies that intersect with fields such as quantum computing, space technologies, energy-harvesting, and environmental science. We believe that the key to solving complex global challenges lies in the ability to integrate knowledge from

different disciplines, facilitated by advancements in nanophotonic technologies.

Our first year has set a strong foundation for *npj Nanophotonics*. With our community's support, we are poised to explore new horizons in nanophotonics research and technology. As we step into our second year, we remain dedicated to continuing our pursuits for high-quality research that not only advances the field of nanophotonics but also contributes positively to society.

Thank you for being an integral part of our journey. Together, let us light up the world of science with innovations that make a difference.

Baohua Jia ✉

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