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EDITORIAL

Welcome to *JPhys Photonics*

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Abstract

JPhys Photonics is a new open access journal from IOP Publishing reporting high-quality, significant, and original research at the forefront of photonics and optics. The journal will showcase the most exciting research advances and discoveries that constitute today's science and will shape tomorrow's technologies. With a particular focus on interdisciplinary research, *JPhys Photonics* is designed to support the flow and exchange of knowledge across existing and emerging communities, maximising the reach and impact of published research.

On behalf of the Senior Advisory Panel, Editorial Board and IOP Publishing, it is my great pleasure to warmly welcome you to the first issue of *JPhys Photonics*.

Photonics—the science and technology of creating, manipulating, transmitting and detecting light—is one of the most important pillars of cutting-edge research and interdisciplinary innovation of the 21st Century. Since the invention of the laser in the 1960s, and the development of photonic semiconductor and fiber optics technology in the 1970s, photonics has increasingly played an instrumental role as driver of transformative research and paradigm-shifting technologies. As a result, our present-day digital society very much relies on photonics science and technologies. The ultrafast optical fibre-based internet backbone, photovoltaic solar energy and minimally invasive medical endoscopy are but three examples that illustrate how photonics has dramatically revolutionized our daily lives.

Photonics will continue to be a flagship science and key enabler for innovation for at least the next century. I anticipate that photonics research will also increasingly become a trans-, cross- and interdisciplinary endeavor; in other words, I expect photonics to become a collaborative research enterprise involving a manifold of other research disciplines. More and more researchers are experiencing the benefits of crossing traditional subject boundaries, working collaboratively and adopting the techniques of other disciplines in their work. This holds not only for photonics researchers that apply the innovating powers of photonics to new application areas, but also for researchers that work in domains outside photonics and that are starting to employ photonics technologies in their specific research environment. As a result, photonics is quickly pervading a variety of research domains, such as health care and life sciences, energy and industrial manufacturing, and smart materials and structures.

To share our knowledge and our findings openly and effectively in this new interdisciplinary research era, journals must also evolve. This is exactly why IOP Publishing have launched *JPhys Photonics*, an innovative new open access journal for high-quality research in all areas where physical sciences are applied in the field of photonics. The journal will showcase the most significant and exciting developments in photonics and photonics-enabled research, and aims to facilitate the flow of knowledge between and beyond the physics, chemistry, and engineering communities, ensuring that authors gain maximum impact and visibility for their interdisciplinary work.

JPhys Photonics is built around four key tenets: publishing high-quality work that represents a significant advance in the field, fostering interdisciplinarity, supporting open science, and providing authors with excellent service. You can view our full Aims and scope here.

Initially, *we* welcome submissions of the following article types:

- *Research papers*: articles reporting new research;
- *Topical reviews*: articles presenting a snapshot of recent progress in a particular field;

- *Letters*: short research articles that report new research;
- *Technical notes*: brief, methods-based articles of a more technical nature, which make a useful and novel addition to the literature; and
- *Perspectives*: commentaries on the impact of previously published work that is of notable interest to the community.

We very much hope you enjoy reading our first content.

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