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## Update from *Optics Letters*: editorial

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This year is the first of my second term as Editor in Chief of *Optics Letters*, so I take this opportunity to reflect on the history of the journal and its evolution in recent years, as well as to discuss some priorities for the remainder of my tenure.

For 46 years *Optics Letters* has been fulfilling its mission of publishing high-quality short communications in all areas in optics and photonics in a timely fashion and with no financial barriers for authors. During the period 2020-2022, *Optics Letters* published in average over 1,600 articles per year, receiving about 76,500 citations per year. The journal's Impact Factor for 2022 is 3.6 and its half-life is 8.4. An example of the importance that *Optics Letters* holds for the optics and photonics community is the fact that at least 23 Nobel laureates have chosen it to publish their work.

The world is changing constantly, as is the way we do science and share our results. The optics and photonics community becomes more global and diverse every year. *Optics Letters* strives to not only follow this trend but to lead by example. During my tenure, the geographic and gender diversity of the [Editorial Board](#) has been a priority. Today, our team consists of an international, diverse group of 68 Topical Editors, 3 Deputy Editors and a Features Editor, representing 20+ countries. I am proud of the strides we have made but I am also aware that there is still work to be done.

Scientific publishing has evolved greatly in recent years. Like other journals by the Optica Publishing Group and elsewhere, *Optics Letters* offers since 2021 the option of publishing a supplementary document as a companion to the main letter article. This supplementary document provides authors with a means to include extra information that can be useful to the readers, but is not essential for understanding the letter, which should be self-contained. *Optics Letters* also offers an open-access publishing option, while maintaining its commitment to providing researchers with the opportunity to share their high-quality results in a prestigious peer-reviewed journal without publication fees. Having started my career as an independent researcher in Mexico, where the grants that were available did not necessarily allow paying for publication fees, I am convinced of the importance of the publication model offered by *Optics Letters*.

During the remainder of my term as Editor-in-Chief, I will continue recruiting Editors that are renowned leaders in their area, always keeping in mind the fact that the society we serve is diverse in many ways. I will work with the Editorial Board and with our excellent Staff on maintaining and improving the efficiency of the editorial process without compromising its quality, as well as on ways to give more visibility to some of the outstanding articles we publish through mechanisms such as *Spotlight on Optics*, *Editors' Picks*, press releases and social media.

An important responsibility in my role is to guide the editorial direction of *Optics Letters* and clarify the standards that we work to uphold. I'd like to dedicate the remainder of this editorial to discussing the level of significance and novelty expected for publication in *Optics Letters*. I have instructed our Topical Editors to be vigilant to the potential impact of the work we publish. A fraction of the submissions we receive present results that are essentially variations of prior work or even of work submitted simultaneously elsewhere. These manuscripts are not appropriate for *Optics Letters*.

In part due to widespread access to specialized software (either commercial or open source), *Optics Letters* has seen an increase in the number of submissions based on computer simulations. This trend has been accentuated with the advent of deep learning and other artificial intelligence methods and tools. Let me stress that computer simulation, along with theoretical derivations and experimental implementation/observation, are the pillars of scientific discovery. At its best, computer simulation is a powerful tool that allows unveiling universal behavior, designing novel devices, or predicting interesting or useful optical phenomena. We are proud to have published many articles that have led to fundamental new insights on the basis of simulations, and we certainly look forward to continuing to publish such work. Nevertheless, many of the submissions we receive that are based on simulation limit themselves to reporting variations of situations described already, whose claim to novelty is often that they are being presented for the first time. The fact that no known record for a result exists in the literature does not necessarily mean that the result warrants publication in a journal like *Optics Letters*.

Let me try to summarize some criteria that must be met for a manuscript to be suitable for consideration in *Optics Letters*:

- A result is worthy of consideration in *Optics Letters* only if it provides an insight that is convincingly general, useful and/or surprising as to be of interest to a sufficiently broad readership within the optics and photonics community. This criterion applies not only to manuscripts based on computer simulation, but also to work involving theoretical derivations, experimental implementation and measurements, or a combination of these.
- While the work reported in a manuscript can be based on simulations, the main contribution must be centered on aspects related to optics and photonics and not on the algorithms being used, unless they are intrinsically linked to fundamental optical laws (such as Maxwell's equations). Novel routines that are not directly related to optics and photonics (even if they can be applied there) would be better placed elsewhere. I would also like to clarify that the fact that one or more articles on a given topic have been published in *Optics Letters* in the past does not constitute automatic validation for the

topic's appropriateness for this journal; the criteria for what is suitable for the journal's scope can evolve, and the judgement of appropriateness lies on the hands of the journal's Editors.

- *Optics Letters* will not consider manuscripts that simply present a variant of work published previously, where the only changes are a different set of parameter values, different initial conditions, a different choice of materials, etc. Again, this criterion applies not only to work based on simulations. The only exceptions are those rare cases in which the variations proposed are shown to be critical and lead to results of an importance that goes well beyond that of the prior work.

Novelty is meaningful when coupled with significance. *Optics Letters* strives to publish research that has the potential to move the science forward for members of the optics and photonics community working on the topic in question, be it for the insights it provides, the phenomena it elucidates on, or the usefulness of the methods it proposes. I welcome your comments and questions about the criteria for *Optics Letters*. You may contact us at [olmss@optica.org](mailto:olmss@optica.org).

It is an honor to serve our community as the Editor in Chief of *Optics Letters*. I know the entire Editorial Board feels the same. We continue to be amazed by the advances that research groups around the world are making every day and the generous support we receive from thousands of reviewers who help us ensure that the journal remains a trusted resource for advances in optics and photonics.