

# Birth of a new baby: *Photonics Insights*

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One day in September 2020, Lei Zhou got a phone call from Prof. Long Zhang, Deputy Director of the Shanghai Institute of Optics and Fine Mechanics (SIOM), Chinese Academy of Sciences, who formally invited Lei to serve as the founding co-Editor-in-Chief (co-EIC) of a new journal that will be published by Chinese Laser Press (CLP). During the short conversation between Long and Lei, Long briefly explained to Lei why SIOM decided to launch this new journal aiming only to publish reviews in optics and photonics. The mission and vision of this new journal became clear as Ms. Lei Yang (General Manager of CLP) and her team visited Lei a week later, and expressed their strong “wishes for building” or “wishes to build” the journal as a globally reputable top platform (being the very first journal of this type proposed in China) for optics and photonics researchers to publish high-quality review articles and for graduate students and junior researchers to quickly follow the frontiers in optics and photonics. Lei was deeply impressed by such a fantastic idea, and totally agreed with the publishers that it is both important and timely to set up such a platform in China, since China not only has the largest group of readers but also has lots of top researchers (with the amount and quality increasing quickly in recent years) working in optics and photonics, both of whom need such a platform urgently. After talking with Ms. Yang, Lei happily accepted the position of Co-EIC. Afterwards, SPIE – the international society for optics and photonics joined as a co-publisher, which accelerated the birth of the journal greatly.

It is always challenging to initiate something starting from zero, but working with editors at CLP is both pleasant and efficient. A milestone event in launching the journal was to invite Din Ping Tsai, Chair Professor at City University of Hong Kong, to serve as another founding co-EIC of the journal, which has gained a beautiful name of *Photonics Insights* (PI) after many internal discussions. In the months following, we (Lei and Din Ping) worked very hard to invite top scientists from different countries to either join the editorial team or contribute high-quality invited review articles to PI. With strong support from the community, 12 leading scientists coming from six countries, with expertise covering different fields in optics and photonics, agreed to join PI as Associate Editors, forming a very powerful editorial team. Working with these Associate Editors, we have successfully invited over 30 top researchers from all over the world with diversified

expertise, who are committed to contributing high-quality review articles to PI.

After more than two years of hard work, we finally reached the exciting moment to see the publication of the inauguration issue of PI, just like seeing the birth of a new baby. The first issue includes four excellent review articles, two full reviews and two mini-reviews written by leading figures in related fields. In the full review entitled “Information metasurfaces and intelligent metasurfaces,” Tie Jun Cui’s group introduced the concept of information metasurfaces and recent advances in designing metasurfaces using artificial intelligence technologies, and particularly discussed the close combinations of information metasurfaces and artificial intelligence to generate intelligent metasurfaces. In the mini-review entitled “Topological photonics in metamaterials,” Shuang Zhang’s group reviewed recent developments in topological photonics based on metamaterials, discussing mainly the realizations of various topological states of higher dimension synthetic spaces. In the mini-review entitled “Classical and generalized geometric phase in electromagnetic metasurfaces,” Xiangang Luo’s group overviewed the development of the geometric-phase concept in optics, focusing on recent advances in continuously shaped geometric phase metasurfaces, geometric dynamic composite phase metasurfaces, and nonlinear and high-order linear Pancharatnam-Berry phase metasurfaces. Finally, in the full review entitled “Microcavity exciton polaritons at room temperature,” Qihua Xiong and co-authors presented a comprehensive review on recent theoretical and experimental developments of the exciton polaritons operating at room temperature, including theoretical background and descriptions of intriguing phenomena observed in various physical systems, as well as accounts of optoelectronic applications. In addition to these excellent reviews on different topics, we are happy to have two commentary articles, written by Prof. Shining Zhu and Prof. Alexey Kavokin, to share with readers their thoughts and comments on the two reviews by Tie Jun Cui and Qihua Xiong, respectively. We hope that you will enjoy reading these exciting articles. Your comments and feedback are highly welcome.

We look forward to your continuous support for PI, as authors, readers, or editors. Let us work together to build PI as a platform to share our insights, thoughts, and knowledge on cutting-edge research in optics and photonics.