

Great expectations

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February 22, 2023 marks an important milestone. We celebrate the fifth anniversary of *Communications Physics*.

This is a very special occasion also for me since I had the pleasure to serve as a member of the editorial board of the journal from the very beginning. During these exciting years, I have witnessed *Communications Physics* growing stronger. I believe that the reason for this success is deeply rooted in the unique editorial system of the journal, which is very specific also within Nature's portfolio. *Communications Physics* guarantees very high standards of editorial evaluation and peer review thanks to the continuous and open dialogue between the authors, the reviewers, and the editorial team. The key characteristics of the latter are the fresh perspective and technical expertise across the various ramifications of the physical sciences, which result from the profitable and tight collaboration between in-house professional editors and editorial board members (EBM). This complementary team, I have the privilege to be part of, continually strives to improve the decision processes and the production workflow. *Communications Physics* is a growing cosy family, where everybody in the team supports each other, giving back passion and commitment to the whole research community.

Serving on an editorial board is demanding and certainly takes time away from my own research. Also, the decision-making process bears responsibilities that can be daunting. However, when five years ago I decided to join this new journal, I strongly believed that becoming an EBM would have offered tremendous opportunities to improve myself professionally and personally. This specific journal was particularly meaningful to me because physics is a field that I am deeply passionate about. Being an EBM at *Communications Physics* not only would have allowed me to interact with cutting-edge research and gain a

deeper understanding of the latest developments in my field, but I would have been able to play an active role in advancing high-quality research and in making tangible and constructive impacts on the broad field of physics. Another important driving force that motivated my resolution was the overarching goal to foster a positive and inclusive environment in science. I was convinced that the open access policy of the journal could have been a key enabling factor to achieve this aim. Open access makes research outcomes freely accessible and lifts paywall restrictions that prevent individuals, particularly those from underrepresented communities, from gathering access and engaging with the current scientific debate. Throughout these years, at *Communications Physics* we made every effort to take a proactive approach along this direction. We implemented measurable actions to address these pressing issues, e.g., by awarding travel grants (see, e.g., Ref. ¹ and Ref. ²) with the specific purpose to support early career researchers in establishing their own network and to disseminate their results. Similarly, the increased focus on open science and data sharing led us to introduce the Transparent Peer Review method as a means to promote greater accessibility³. This effectively enables authors to publish the reviewer reports and author responses alongside their paper.

The feedback I received thus far as EBM has been indeed invaluable, thereby reinforcing all my original aspirations and initial enthusiasm. In retrospect, the EBM position offered valuable opportunities for my career and my professional development. *Communications Physics* gave me the exceptional possibility to handle manuscripts covering various topics. Eventually, it sharpened my knowledge, expertise, and changed the way I perceive research in physics. My background in

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condensed matter physics with a particular focus on semiconductors lies at the intersection between photonics and spintronics: a research landscape in which significant transformations have rapidly occurred. The journal has always been a very important forum for those active on these topics. Materials and solid-state physics covered indeed a large proportion of the publications when the journal was launched. But *Communications Physics* has evolved over the time, gaining visibility, and establishing itself as a reference in the publishing panorama also in other fast-moving areas, including quantum physics and technologies. Impressive papers are indeed beginning to emerge in such strategic fields. In this context, I had the pleasure to observe the rise of hot topics in the exploitation and manipulation of spin-dependent phenomena and contributed to initiate highly selective contents such as the *Focus collection* on the “[Floquet engineering of quantum materials](#)”. Yet, the journal has seen a growing diversity with a notable evolution also towards multidisciplinary physics. Looking ahead, I expect that the commissioning of novel subjects will blossom, strengthening *Communications Physics* as an influential channel for the timely dissemination of foremost and impactful research of interest to the specialist subfields.

By celebrating this anniversary, we are given the crucial opportunity to look back over our past endeavours and achievements. All of us have experienced

certainly rewarding, but also difficult moments due to challenges such as the climate crisis, the pandemic outbreak, and the tragedy of the war. While the time ahead might seem uncertain, the physics community has already demonstrated resilience, mutual support and distinguished itself for its genuine positive attitude. It is likely that peer review contributes to forge such a precious skill. Despite its inevitable flaws and limitations, peer review sets out important lessons worth considering. Notably, it naturally fosters constructive and open dialogue between individuals being either authors, referees, or editors. It favours peaceful disputes, the resolution of conflicts and even when contrasting opinions remain it can generate proactive ideas and new collaborations. Finally, the breadth and level of engagement has a significance that ultimately extends well beyond the scientific enrichment of those who are directly involved in the process. Frank and transparent dialogue among the parties ensures the quality of research and has the potential to push forward the limits of our knowledge with solid implications for society and humankind.

In light of all these considerations, I can certainly conclude that being a member of an editorial board of *Communications Physics* has been a fulfilling experience. Great expectations are ahead, and I am confident that the enthusiasm and competence will keep propelling the physics community, the journal, and our whole

editorial team in the next exciting years. Happy fifth anniversary!

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