

## Editorial

For thousands of years, mathematics has played a most important role in the development of human civilization. It is the mathematicians who invented the computer based on actual demands, established the foundation of computer science, and prompted the arrival of the information era. In this era, the importance of mathematics is increasing steadily.

The quantity and morphology in mathematical research are essential attributes of matter. Therefore, mathematics becomes a magic and powerful tool to understand the nature and the human society with endless possibilities of its rational value and application value.

Mathematics plays a crucial role in facing many challenges of sustainable development, such as in the exploration of the law of climate evolution, the law of ocean flow, the law of disease transmission, the law of economic operation, as well as the effects of drugs, and the ecological environment. Mathematical models and methods are both basic tools, playing a central role in computer science, artificial intelligence, communications, Internet, and cryptography. At the same time, mathematics is an indispensable tool in natural science research and technology such as biology, medicine, advanced materials, energy, and automation, and social science research such as urban governance, business, finance, and advanced design. Some researches in the areas even involve abstract mathematics, such as category theory and topology. These are vital to the sustainable development of our society and economy.

Obviously, mathematics is a cornerstone of sustainable development today. Its development would strongly promote the development of human society. Clearly, high-level mathematical journals are very important to the development of mathematics.

*SCIENCE CHINA Mathematics* is a monthly peer-reviewed mathematical journal that is devoted to publishing high-quality and original research articles in all areas of pure and applied mathematics. It is published by Science China Press and Springer. At present, the journal is put at the level of *Transactions of the American Mathematical Society*, *Journal of the London Mathematical Society*, and *Mathematische Zeitschrift*. In the next stage, the journal aims to reach the level of *Advances in Mathematics* and *Compositio Mathematica*. A further target is to reach the level of *Duke Mathematical Journal*, *Journal of the European Mathematical Society*, and *Cambridge Journal of Mathematics*. The ultimate goal of *SCIENCE CHINA Mathematics* is to become one of the few mathematical journals of the highest level in the world.

Highly respected by the mathematical community, *SCIENCE CHINA Mathematics* is the most well-known mathematical journal in China, which plays a huge role in promoting the development of mathematics in China and in academic exchanges. This is undoubtedly owing to its high starting point and the joint efforts of the previous Editors-in-Chief, all editorial board members, editorial staffs, authors, referees and readers. In the past decade, with the efforts of all, Professor Ya-xiang Yuan has led *SCIENCE CHINA Mathematics* into rapid development, with significantly improved quality and influence. Being the journal's new Editor-in-Chief, I deeply appreciate all the efforts of my former counterparts for establishing the excellent reputation and firm development basis of this journal. It is my great honor to work with the new editorial board of *SCIENCE CHINA Mathematics*. We will make every effort to keep the journal on its way of improvement.

Mathematics is now in rapid development and the number of mathematicians is increasing steadily. These also happen in China and are even more notably. In such circumstances, academic communication platforms have become increasingly important. *SCIENCE CHINA Mathematics* is a highly respected

platform for communicating mathematical research works. It has a wide readership, a long history, an excellent reputation, and a world-class editorial board, and it provides high-quality and efficient services in editing, publishing and dissemination.

I would like to express my sincere thanks to all people who contribute to or support *SCIENCE CHINA Mathematics* in various ways. As always, *SCIENCE CHINA Mathematics* will provide first-rate publication and dissemination services for high-quality mathematical research works. Expectedly, the journal will enter a higher stage with increasing influence in its course of steady development.

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