

Editorial

Dear Readers,

welcome to this decade's first issue of *Parabola*!

Starting dramatically, this decade has shown how the world changes, sometimes slowly and sometimes quickly. At the same time, some changes have reminded us that a few old truths stay constant and true. This interplay of flux and permanence is nicely characterised by the theme of this issue: Fibonacci numbers and the golden ratio. This area of maths is thousands of years old and yet is blossoming still today.

The first article of this issue, by Radu-Ioan Mihai, shows a new and geometric way to interpret Fibonacci numbers, the related Lucas numbers, and the golden ratio. Some nice results and proofs let us understand new geometric properties of these numbers.

In contrast, the second article, by Ashwin Sivakumar, contains no proof or result; instead, you are invited to join and contribute to happy exploration, of recursive fraction operations that lead to Fibonacci numbers, the golden ratio and other irrationals.

In the final article, I shine light into some of the less-visible and less-visited corners of knowledge about Fibonacci numbers. After some brief but interesting history, I present counting problems that have Fibonacci numbers as solutions. Explanations are mostly omitted, so as to let you, dear Reader, enjoy some nice challenges.

This year's volume is dedicated to the memory of John Conway who died recently. At 82, he was not young and yet his death was still a shock to many mathematicians. His brilliant ideas and the sense of joy and excitement that his work induced seemed to me a permanent and reliable source of wonder and inspiration, and so they will continue to be.

On a happier note, I am overjoyed to welcome my excellent colleague Arnaud Brothier to the editorial team, to share with David Angell the role of Problem Editor. Arnaud and David intend to include problems created on the basis of their ongoing mathematical research, to show that even cutting-edge abstract research relies on maths that is accessible to everyone, including school students. They have created some of these problems for this issue, along with other beautiful problems for you to enjoy. Look forward to more of such research-related problems in future issues too!

Speaking of problems, we would like to congratulate Shiva Oswal who recently won the prestigious 2020 Spirit of Ramanujan Fellowship. This is the latest impressive achievement of Shiva, 16 years old, who has contributed several *Parabola* problems. Please feel free to submit your problems and articles too!

Finally, I would like to thank Mike Chapman and Robert Schneider for yet more clever and hilarious maths comics.

Enjoy!

Thomas Britz
Editor