

## Preface to the Coates special issues

John Coates was born in the countryside of New South Wales, Australia, in 1945, and did his undergraduate studies at the Australian National University, Canberra. To celebrate his sixtieth birthday, the editorial board of the Pure and Applied Math Quarterly Journal has decided to publish two special issues in honor of him.

John has contributed greatly to number theory, arithmetical algebraic geometry and Iwasawa theory. His 1977 fundamental paper with Andrew Wiles on the conjecture of Birch and Swinnerton-Dyer was “a landmark contribution to number theory which introduced a panoply of new methods into the field of elliptic curves.” His “insights into the Iwasawa theory of the symmetric square of an elliptic curve were instrumental in the recent proof by Wiles of the Shimura-Taniyama conjecture for semistable elliptic curves over  $\mathbb{Q}$ ”. His recent joint work with Fukaya, Kato, Sujatha and Venjakob poses a vast non-abelian generalization of the main conjectures of classical Iwasawa theory.

Besides his many fundamental contributions to mathematics research, he is also an inspiring teacher and expositor. He has always been deeply interested in China and Chinese civilization. In the past few years, he has spent a considerable amount of time to organize and coordinate the international summer school in number theory at the Center of Mathematical Sciences, Zhejiang University.

We hope that these two special issues could convey a sense of his long lasting influence on the mathematical world, and his friends and colleagues’ deep appreciation for his efforts.

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The editorial board of these two special issues:

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