

Still in school, but duo write physics book

They put in a year's effort to help NUS professor with textbook

■ BY LEOW SI WAN

TWO students at the NUS High School of Mathematics and Science have something to be proud of – their names are listed as co-authors of a textbook about quantum physics.

Singaporean Lynn Chua, 18, and China-born Singapore permanent resident Liu Shiyang, 20, both final-year students at the school, co-wrote the 160-page book, titled *Six Quantum Pieces*, with National University of Singapore (NUS) Associate Professor Valerio Scarani.

It is targeted at junior college students keen on pursuing quantum physics at a higher level.

Miss Chua said the pair met Prof Scarani

while presenting a science project at Nanyang Technological University in March last year.

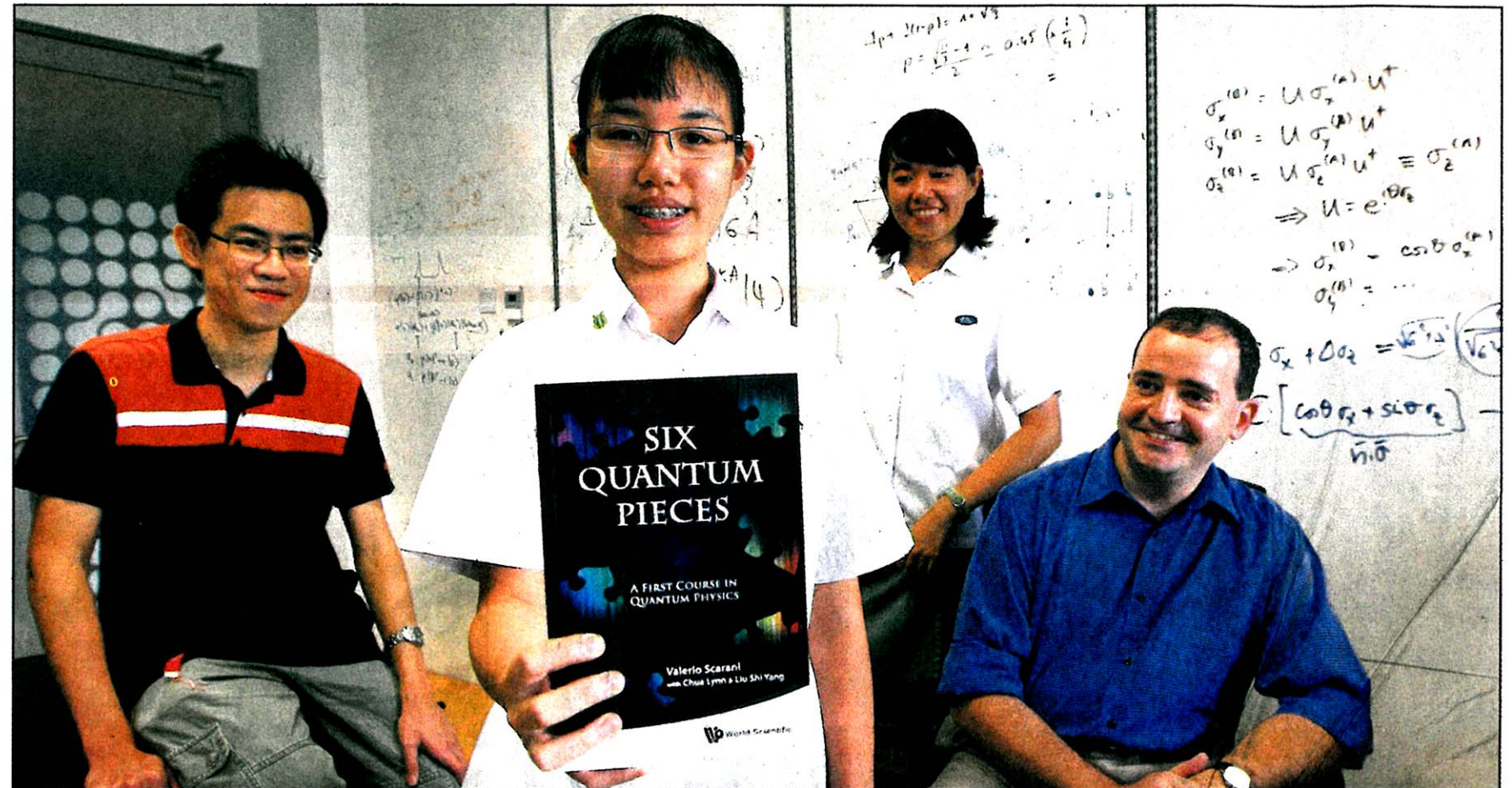
The daughter of an NUS computer science professor and a housewife added: "We started talking about quantum physics, a subject we are passionate about, and he roped us in to help with the textbook. We jumped at the chance because of our interest in the topic."

The Italian professor, who teaches quantum optics at NUS, had already written a book on quantum physics.

Prof Scarani added: "I have long wanted to write a book about quantum physics for school students and this is my first attempt. It is not easy for a researcher to target the right level. By collaborating with students, the chances are better."

It took the team of three close to a year of hard work before the text was ready.

Before they began writing, Miss Chua and Miss Liu went through a series of lectures by Prof Scarani so they would have a better understanding of the maths



NUS High students Lynn Chua (centre) and Liu Shiyang co-wrote the quantum physics textbook with NUS Associate Professor Valerio Scarani (right). On the left is the book's illustrator, NUS physics honours student Haw Jing Yan. ST PHOTO: TERENCE TAN

and physics components of the topic. They were then given six problems to solve.

Miss Liu, who came here from China more than eight years ago, said: "Some of the concepts were very difficult so we had to do research on the Internet and in the library."

Once they had the solutions and verified that they were correct, the two students – with the help of Prof Scarani – proceeded to write up the solutions in a

way which students their age could understand. Prof Scarani also got NUS physics honours student Haw Jing Yan, 22, to create illustrations for each chapter.

According to a spokesman for the book's publisher, World Scientific Publishing Company, more than 100 orders for the book have been placed both here and overseas since it was launched last month.

The paperback version of the book costs US\$24 (S\$31.40), while the hardcover

version costs US\$48.

It is available for sale online at the World Scientific Publishing website <http://www.worldscibooks.com/physics/7965.html> and is in the process of being shipped to major book distributors here.

Miss Chua said: "Having studied so many textbooks for school, it feels wonderful to see my name as the author of a book. I feel very happy to see the product of our hard work."

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