



數學系博士生奪中國著名 鍾家慶數學獎 PhD student wins prestigious mainland mathematics award

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香港城市大學（城大）數學系博士生段仁軍憑着他對玻爾茲曼方程式（Boltzmann Equation）的數學理論研究，獲頒發2007年度鍾家慶數學獎。今年共有八位年輕學者獲獎，段仁軍是唯一來自香港的得獎者。

鍾家慶數學獎旨在獎勵中國最優秀的在讀生及獲得學位不久的數學研究生，被喻為數學界的「初出茅廬獎」，是中國數學界三大獎項之一。

段仁軍一直熱愛數學，特別是在物理上有重要應用的動力學理論，多年來集中於玻爾茲曼方程式的研究，並且在不少主要的學術刊物上發表過研究文章，其中一篇贏得了論文獎。玻爾茲曼方程式是偏微分方程領域中最富挑戰性的研究主題之一，段仁軍主要根據玻爾茲曼方程式研究在近乎真空狀況下氣體分布的規律。

段仁軍對獲獎感到十分榮幸。「這次獲獎要感謝城大科學及工程學院副院長及數學系楊彤講座教授，以及碩士論文指導老師的支持和鼓勵，」他說。

此外，他亦感謝城大為他提供有利的研究環境。他說：「城大的學術環境十分開放自由，能提供空間讓

學生獨立思考。城大又提供很多參加國際性會議及研討會的機會，令我大開眼界。」

段仁軍於2005年在華中師範大學取得基礎數學碩士學位，其碩士論文「無窮遠真空中帶外力玻爾茲曼方程式的整體存在性」曾於2006年贏得湖北省教育廳頒發的湖北省優秀碩士學位論文獎。

城大與內地大學關係向來密切，段仁軍有感城大數學系師資優良、人才輩出，碩士畢業後便來到城大數學系攻讀博士學位。他表示動力學理論中仍有很多未解決的數學問題，極富挑戰性，希望以後能夠繼續從事這方面研究，為數學界作出更多貢獻。

楊彤教授讚賞段仁軍的表現，他說：「到華中大學訪問時已經認識段仁軍，他是非常勤力及出色的學生，在數學方面極富潛力。鍾家慶數學獎對於中國數學界，特別是年青數學家來說，是享有盛譽的獎項之一。」

鍾家慶數學獎於1987年創立，是中國數學界人士和一些美國華裔數學家為了紀念中國著名數學家鍾家慶教授而設的，以表彰與獎勵最優秀的數學專業碩士、博士研究生，鼓勵更多年輕學者獻身數學事業。

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Duan Renjun, a mathematics PhD student at City University of Hong Kong (CityU), was awarded the Zhong Jiaqing Mathematics Award for his outstanding research into the mathematical theory of the Boltzmann Equation. Eight winners were selected this year and Duan was the only one from Hong Kong.

The Zhong Jiaqing Mathematics Award is granted to outstanding students who have just completed their Masters or PhD in mathematics. The award is recognised as one of the three major mathematics awards on the mainland and is respected as a prestigious award for young mathematicians.

Duan has always been interested in mathematics, with a particular focus on kinetic theory, which has important applications in physics. He has dedicated a great deal of time and effort to research on mathematical theory of the Boltzmann Equation and has published papers in major academic publications, one of which earned him an award. The Boltzmann Equation is one of the most important equations of non-equilibrium statistical mechanics and represents a major challenge to mathematicians.

Duan said he was honoured to receive the award. "I'd like to thank Professor Tong Yang, Chair Professor of

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Mathematics and Associate Dean of Faculty of Science and Engineering as well as the supervisor of my master thesis for their encouragement and support," said Duan.

He also thanked CityU for providing an environment conducive to research. "The academic environment at CityU is very open and free, allowing students to think in an independent way. In addition, I have broadened my perspective by participating in local and international conferences and seminars," Duan added.

Duan received a master's degree in Base Mathematics from Hua Zhong Normal University in 2005. He won the Hubei Provincial Outstanding Master's Thesis Award for his masters thesis entitled "Global Existence to Boltzmann Equation with External Force in Infinite Vacuum" in 2006.

Due to the close relationship between CityU and mainland universities, and the fact Duan had learnt about the excellent standard of CityU's Department of Mathematics, he decided to pursue his PhD study at CityU. Duan said there were still a lot of unresolved mathematical problems in Kinetic Theory which were very challenging and he wished to continue his research after graduation.

Praising Duan's performance, Professor Yang said: "I met Duan when I visited Hua Zhong Normal University. He is a very bright and hard-working student who has immense potential in mathematics."

The award was established in 1987 by mainland and American Chinese mathematicians to recognise the contributions of Zhong Jiaqing to his field. The award is granted to outstanding students taking Master's or PhD degrees in mathematics, and encourages young researchers to devote themselves to mathematics research.