Preface

Our friend and colleague Andrey Todorov passed away on March 30, 2012, during a scholarly visit to Jerusalem. Mathematicians are deeply saddened by his sudden death. We felt that a special volume of mathematical contributions from his friends and colleagues dedicated to Andrey's mathematical legacy is most appropriate.

When this journal invited distinguished mathematicians to contribute their papers in honor of his memory, practically everybody agreed immediately. The papers in this memorial volume cover a wide variety of topics in complex geometry, algebraic geometry and mathematical physics. They are clearly of superb quality and have all gone through the the standard procedure of refereeing. They reflect the tastes of Andrey Todorov who had provided so many original ideas in these subjects. His pioneering ideas include applying the Ricci flat Kähler metrics on K3 surfaces to prove the surjectivity of the Toreilli map, paving the way to proving that K3 surfaces are Kähler. He found and the basic lemma to generalize the work of Bogomolov on non-obstructions to the deformation of Calabi-Yau manifolds. In the last ten years, he had also worked with some of us on periods of Calabi-Yau manifolds. We are very proud of his achievements and are deeply saddened by his untimely passing.

Andrey Todorov was born on May 04, 1948, in Sofia, Bulgaria. He graduated from Moscow University under the direction of Professor Igor Shafarevich in 1976, and came to America in the seventies. He was a faculty member at the University of California at Santa Cruz and had been a visiting scholar at numerous mathematical centers around the world including Columbia, CUHK, Harvard, IHES, Jerusalem, UCLA, and Zhejiang University. Andrey will be remembered not only for his indelible contributions to mathematics, but also for his generosity toward others in sharing his mathematical insights and his passion in mathematics, wherever he went. No wonder that he had made enduring friendships with countless mathematicians all over the world who have had enriching encounters with him!

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