

Yinyu Ye's speech after winning the John von Neumann Theory Prize (10/11/2009)

I am extremely honored and humbled to accept this award shared with my friend Yurii—I could not think of a better person to be the co-winner. I thank the prize committee, Guillermo, Kurt and Jim, for selecting us.

For me, it has been a long journey to this point, and I have so many people to thank, who helped me on the way and made me who I am today, standing at this podium. At this very time 40 years ago, I was laboring in a rice field, sunrise to sunset, fourteen hours a day doing hard physical work. I could not go to college after high school, and was forced to relocate (with my parents) to remote farm land. I saw no hope in my life... Although I wish he could have done more, I do thank Deng Xiaoping who opened the door of China, so that I had a chance to rise from the rice field, had a right to a college education ten years later, and eventually had an opportunity to pursue a graduate degree at Stanford starting in 1982.

I'm deeply thankful to George Dantzig who taught me Linear Programming. He was a great advisor, and a remarkable person as well. On the night before he passed away the following day, my wife and I visited him at his bedside. He asked me how my research was going, and passed his best wishes for us. I also thank other faculty in the now MS&E department for their teaching and advising, such as David Luenberger, on the subject of Nonlinear Optimization.

My heartfelt thanks go to a group of fabulous colleagues who worked on Interior-Point Algorithms for LP and SDP: Todd, Anstreicher, Nemirovskii, Vavasis, (... long name list). I felt so lucky, at the beginning of my career, to associate with such a wonderful, unselfish, and supporting group in a very competitive research environment. Everyone was cheering for everyone else; it was like a family.

I am so grateful to Dick Cottle, Pete Veinott, Peter Glynn, Michael Saunders, Ben van Roy, and Stephen Boyd, who brought me back to Stanford, where I learnt many new things and have had many talented students. Especially, Pete has been a mentor for me. His devotion and love for OR&MS set a role model for me to follow. I also thank the Boeing Company for picking me as a research partner.

Last, but not least, I thank my beautiful wife, Daisun, who is with me today. I thank her for supporting my seeking a dream education in the U.S. while she was alone taking care of our small daughter in China. I thank her for always encouraging me to move forward and to gain better results. One time I worked on an approximation algorithm for the Max-Bisection problem, and had a provable approximation rate of 0.699. When I told her this result, she was not impressed. She said this number looked like a "supermarket number": 6 dollars and 99 cents, and asked me to make it to 0.7. I tried very hard but could not prove it. Later, somebody did use a stronger SDP relaxation to make the bound 0.701, which still stands as the best today. This prize is shared with you and our daughter... Thank you.