Antonín Novotný

Ladies and Gentlemen, dear colleagues, friends.

Events and actions in time and space flow incredibly fast. Today, Antonín Novotný is being given the honour of the Bernard Bolzano Medal for Merits in Mathematical Sciences. I have the privilege, honor and enormous pleasure to present you Antonín, excellent mathematician, formidable man, my long term collaborator and friend.

Antonín Novotný is a French mathematician by official citizenship, who was, however, born in former Czechoslovakia and passed his undergraduate and graduate studies in Prague under strong influence of leading persons of Czech mathematical school. Among others, Jiří Neustupa, who was director of Antonín's PhD Thesis, and Jindřich Nečas, who directed him to problems connected with fluid mechanics and motivated his future career.

Antonín graduated in 1983 at the Faculty of Mathematics and Physics of the Charles University and obtained the PhD Degree at the Czech Technical University in Prague in 1990. He started his professional career at the Charles University and the Institute of the Physics of Atmosphere of the Czech(oslovak) Academy of Sciences. Later he moved to France to Toulon, where he obtained his Habilitation in 1995, and became full professor in 2008. Among many long term visits, one should mention explicitly his stay at the university of Ferrara in 1991–1992, where he collaborated with M. Padula and P. G. Galdi. This collaboration definitely determined his future research orientation towards partial differential equations that arise as models of fluids in continuum mechanics.

Although becoming officially a French citizen, Antonín Novotný has been always considered inseparable from the Czech mathematical community. Together with P. Penel, they created a position of visiting fellow at the University of Toulon exclusively for researchers of the Czech Republic or former Czechoslovakia. Many of us have profited of this opportunity to combine excellent mathematical environment, with the beauty of the French countryside and unforgettable taste of excellent wine. Although this position does not exist any more, the collaboration continues at even more intensive level.

Antonín is a world known expert in mathematical fluid mechanics. It is not easy to choose among his 120 research publication and 3 monographs registered by the database MathSciNet a representative sample of results. They reflect his incredible large scope of interest, ranging from mathematical analysis and purely theoretical problems, over modelling, to rigorous analysis of numerical schemes.

A remarkable piece of mathematical literature is definitely the monograph *Introduction to the mathematical theory of compressible flow* Antonín wrote together with I. Straškraba that was published by Oxford University Press. The book collects all up to date development of the mathematical theory of compressible fluid flows and presents them in an admiringly clear, concise but at the same time completely rigorous way. It became a standard reference material and for its completeness very popular among students and researchers with the desire to understand this very complex and technical topic.

It was Antonín who discovered a voluminous survey paper written by R. Klein and his collaborators that later became unexhaustable source of inspiration for our joint research on singular limits for complete thermodynamics models. This effort culminated in the joint monograph *Singular limits in thermodynamics of viscous fluids* published in two editions by Birkhäuser.

Recently, Antonín aborded actively another topic, namely analysis of numerical schemes related to problems in fluid mechanics. Together with his Marseille collaborators, notably Thierry Gallouet and his wife Raphael Herbin, they developed a general method how to estimate effectively numerical error based on the original application of the method of relative entropies.

Research achievements of Antonín Novotný have been appreciated by mathematical community. He has been awarded several prizes and medals, notably

- Prime d'encadrement doctoral et de la recherche
- Prime d'excellence scientifique
- Prize of the Czech Academy of Sciences for significant scientific results

I could have continued describing Antonín's achievements much longer but I am sure Antonín will start suffering. He is a guy who hates long speeches, despite the fact of being French, and prefers hard work. These personal qualities have been documented not only by his achievements in mathematics, but also in family life, various X sports he actively practices, house construction and many other areas. Sometimes, you may hear people to say: this is a tough guy. Well, for me, Antonín fulfills this ideal in any imaginable way, perfectly.

Ladies and gentlemen, let me present Antonín Novotný !