

Rene Alt: A life dedicated to Science



It has been often said the Science teaches us humility. This is so true for René Alt. René was an excellent researcher in the interface of mathematics and computer science with a broad spectrum of knowledge and research interests, but also humble, understanding and equally respectful to students, colleagues or managers. Those of us who had the privilege of knowing him will remember how considered he was when expressing disagreement and how gentle

he was in communicating criticism. His views and opinions were motivated by a wealth of knowledge and experience, yet he would not impose them but would rather bring others calmly into his understanding, so that an argument with René was in fact a pleasant experience. His unique sense of humor always helped to keep things in perspective. René Alt's research work is published in more than fifty articles in international journals. It is more interesting in my view that it spans over several research disciplines in mathematics and computer science. These include numerical analysis, statistics, probability, high performance computing, medical imaging. In his work these fields were connected into modern and practically important topics like

- probabilistic approach for the numerical validation of software;
- stochastic interval arithmetic for reliable computations.

We can consider that fifty years ago these would have been considered very unlikely word combinations. In this respect, I would see the significance of his work not only in the published results, but also in the direction provided for future research.

René Alt had a long and distinguished academic career. He became a professor at the University of Caen in 1985. In 1992 he returned to the Pierre and



René Alt at the opening of Biomath 2014

Marie Curie University in Paris, where previously he was a lecturer. There, he played an important role in the creation of the Computer Science Laboratory of Paris 6 (LIP6). He was appointed Head of the Computer Science Department and later Vice-President of the University, a recognition for him both as a scientist and as a leader. Somehow, while being a captain of scientists, he still remained a servant of science.



René Alt, Carlos Castillo-Chavez, Yves Dumont during the Biomath Hot Topics workshop

Editor, jointly with Svetoslav Markov, of the Biomath 2014 and Biomath 2015 special issue of Mathematics and Computers in Simulation. He did the work diligently and professionally to full completion despite his health problems.



René Alt and Svetoslav Markov at lunch during the Biomath excursion

René Alt joined the Biomath initiative through his collaboration with Svetoslav Markov and the Bulgarian Academy of Sciences. He supported it in the same wholehearted way in which he supported all science ideas he believed in. His expertise, advice, personal effort were available in an unobtrusive way whenever needed and always added value. His last big task was to be Guest

Editor, jointly with Svetoslav Markov, of the Biomath 2014 and Biomath 2015 special issue of Mathematics and Computers in Simulation. He did the work diligently and professionally to full completion despite his health problems. René Alt passed away on 28 April 2017 - a month after the Special issue was published. I met René for the last time on Monday, 12 December 2016. I was on a short research visit in Paris. For him Monday was week's best day as it was in the middle between the weekly chemotherapy treatments. I appreciated he had lunch with me on that day. While fighting for his life he conducted himself with class and dignity and approached the subject with humor. I felt very privileged to have known him. René lost this battle. Inevitably, we all eventually lose this one. What happens before that is what matters.

Roumen Anguelov