## Alberto Pettorossi, the great scientist and my dear friend (Invited Talk)

Andrzej Skowron

Institute of Mathematics, Warsaw University, Banacha 2, 02-097 Warsaw, Poland skowron@mimuw.edu.pl

It is not easy to summarize our thoughts about a person whom we know for many years.

I now Professor Alberto Pettorossi for almost 40 years. Our first meeting was somewhere in Poland, during one of the conferences. I remember our trip to forest where it was possible to find nice blueberries. While returning from this trip we stopped in a small cafeteria ordering ice creams. After adding to them blueberries they became quite special. Looking what we have, everybody entering to the cafeteria started trying to order ice creams with blueberries as well. Of course they ended up in unsuccessful attempt. Perhaps, this was the reason that other visitors were looking at us as if we were very special guests.

I was very happy when Alberto invited me to cooperate with him on program transformation techniques related to functional programs. It was quite long period during which our cooperation was intensive with full of frequent visits in Rome, in Warsaw, and in many conferences. Together we have written about 20 papers. This was recognized by the Polish Mathematical Society with the offer of Janiszewski award in 1988.

Alberto was and is always very much dedicated to perfection in the research and life. This was most probably the reason that he decided to work for PhD thesis in abroad, i.e., in one of the top research universities in Europe, in Edinburgh. At that time PhD studies in Italy did not exist. The attitude of Alberto to absolute perfection and precision in the research also created some problems in our research cooperation. For example, dealing with program optimization for computing complex functions one can expect some bounds on application of the existing logical tools provided by mathematical logic. I remember, that during my stay as a visiting professor in U.S.A. we have recognized this during writing a paper for the AAAI conference. However, Alberto was not very much dedicated to this direction of research. Nowadays, while using Data Science methods for analyzing large data coming from interactions with complex phenomena, we understand more and more that there is also a room to use experimental data and methods based on soft reasoning, which is different from the method based on the well developed notion of deduction in mathematical logic. This new reasoning, may be called adaptive judgment, should also take into account issues of induction, abduction, experience, perception, action, etc. Alberto, following his way based on the absolute perfection, in particular precision, decided to continue the research dealing with transformation techniques based on logic programming without techniques for reasoning under uncertainty.

Starting from the very first meeting, I recognized Alberto as not only a very dedicated research scientist and a very talented researcher, but also a great human being totally abided his life by the principles of Catholic religion. During the whole long period of our friendship I can't recall a moment when he turned away from this way. Often, I was telling him that I am treating him as the saint to a degree 1. Alberto realized his way to perfection in life is ahead of many people including myself. This is like during our trip to Castel Gandolfo when we decided to return to Rome by jogging. Even if it was many years ago, I still remember that before I arrived to the Alberto's house he was already able to take a shower and a nap. We have experienced so many miracles during our meetings in Rome, Warsaw, Edinburgh, Charlotte and many other places that we decided to write a book about them. Unfortunately, this is not yet done.

Submitted to: VPT 2020 © Andrzej Skowron This work is licensed under the Creative Commons Attribution License. I was, very rarely, only able to astonish Alberto; he rather has had a critical opinion about me, and has been trying to make me better. One case is related to his visit with some priests and bishops for the audience with Pope John Paul II, now our great saint. When Pope was passing by close to Alberto he stopped and touched his face saying: You should eat more because you are very slim. After a while, Alberto answered: I am cooperating with professor from Poland. What is his name, asked Pope. When Alberto said my name, Pope was saying: I know him, I know. Alberto was shocked and was telling this to his mother. Then my position in her eyes grew up very much. I will always remember her great hospitality and openness during my visit in the Alberto's family house in Loreto. Unfortunately, this professor, about whom Pope was speaking, was another professor from Cracow, much older than me, the well-known specialist in biology and colleague of our Pope.

During meetings with Alberto it was always possible to observe his talent of adding some higher values to meetings, talent for infecting participants of the meeting with a kind of joy and enthusiasm together with lot of stimulations for the research. In particular, I experienced his great help during the martial law in Poland, and not only that, when he supported very much my family both on the spiritual and material level. Many thanks, my friend and younger brother, Alberto. I have learned from you so much which is beyond the problems related to the program transformation techniques.