## Pamela, 10 Years in space Some reflections and thoughts from Prof. Dr. Manfred Simon University of Siegen, Germany

## Dear Pamela-people

Today we celebrate Pamela 10 Years in space and it is a great pleasure for me to join this celebration. Let me say something which is on my mind.

I followed Pamela from the beginning on and lived through all phases of this program. All the processes and steps, good ones and bad ones, during the whole process of making Pamela alive, touched me emotionally and accompanied my thinking in all these years.

When we celebrate today these 10 years of Pamela in space we should remember that the idea of Pamela traces even further back in time. The idea for Pamela was borne out of a program which we then called Wizard. In a series of balloon-borne experiments we pursued in a joined international effort scientific objectives close to those we then addressed later in the Pamela-instrument. The work on these Wizard experiments shaped our skill in dealing with these types of sophisticated instruments and helped us to design and to build later the Pamela-instrument. An international collaboration was formed to make the Pamela-project going. A number of Universities from 4 different countries formed this collaboration and they came from Italy, Russia, Sweden and Germany.

Then we started this endeavour in an approach which was brave and risky at the same time since Pamela was going to become a space experiment. We built the individual parts and detectors of the instrument on our own with students and scientists from the various Universities and we assembled the various parts including the flight model at the University Tor Vergata in Rom, thus outside the space – industry. This was absolutely a novel. We did this in order to stay within the allotted money for this project and we were not afraid to do

so since we were used to it, we built all the Wizard experiments on our own. So we knew what we were doing.

The Pamela instrument was built and finally successfully launched to space on the 16<sup>th</sup> of June 2006 by the Russian space agency and it is still going around the earth. During this long time of observation it provided us with a tremendous amount of data and put us into a front position of Cosmic Ray Research. The analysis of these data let to scientific results of unprecedented quality and precision. Many publications came out of this program and we covered various aspects of particle astrophysics. The scope of all theses results went beyond our initial expectations. A new light was thrown on the interpretations and the relevance of the high energy particles from space. Pamela became the most successful instrument ever used in this field of research. The physics-world was talking about Pamela! This is by all means a very great success and a lucky one too since so many bad things can happen. Believe me, such a success does not happen very often, or better, it is very seldom in once scientific life. The more we think about this the more we should be very happy.

But great programs require great men or women and there is one person who is connected to the Pamela project in all aspects the most. It is our Piergiorgio Picozza, he is actually Mister Pamela. He is the great promoter of this endeavour. He, as a scientist, put all his effort into this idea of making Pamela to a valid scientific program. But not only the knowledge about the physics around such a program is needed, one has to organize the whole thing which includes politics, money request, organizing a working group, negotiating with foreign agencies and signing documents and more. Piergirogio handled all these things amazingly well with great dedication and always with a kind of smile. I was impressed by seeing all this.

I will also not forget that he and Piero Spillantini joint me in Bonn when I presented Pamela to the referee board of the German funding agency.

So, we have so many good reasons to say thank you Piergiorgio and we do this with a great applause.

But there is another man whom we have to thank. It is the person who did very much the same in Russia like Piergiorgio did in Italy. It is Arkady Galper. I can imagine how complicated it must have been to make Pamela to a successful project in Russia, including the launch of this instrument. Without the Russian expertise and capability in space physics we would not have succeeded. Therefore, dear Arkady we say also to you thank you very much. You did a very good job on the Russian side and we thank you also with a big hand.

And then to another younger man who deserves some special recognition. It is our Mirko Boezio. He is very close to the science of this project and he guided us so nicely through so many hours of our scientific meetings. Dear Mirko, your outstanding contribution to the project was to Pamela's great benefit and we thank you.

And now I give my congratulation to all of us who worked so hard to make Pamela to a success. Our collaboration provided new knowledge to the world and brought new ideas to the people. This is that, what science is all about.

In this context I think it is legitimate and appropriate to refer to the great Italian Scientist Galileo Galilei who was one of the first who used instruments and experiments in order to better understand the world instead of just using the human spirit and philosophical thinking. In this sense we followed him in his footsteps and this is a great honour.

There is something else on my mind which I want to mention. This is something on the practical or political side. Pamela is an international project. People from different countries joined and went for a common goal. This project brought people together from different countries. They worked peacefully together and were motivated by finding out what nature can tell us. People among the collaboration made friends and carry home all these good experiences. Some of the young participants had even the chance to start their scientific carrier out of this project. This is in my view the best foreign policy which I can think of and therefore I suggest that the politicians should give us more money so that we can form a better world.

Let me make one more remark. When the younger physicists among us will get older and when they will remember Pamela, I promise you, they will say: Pamela, that was a wonderful experiment and I met so many nice people.

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