

Address of thanks by Paul Black to GIREP meeting in Kraków, August 2016

I must first say is that I am very pleased and honoured to be able to speak to this celebration meeting. I am very sorry that it was not possible to me to be here in person and I thank Dagmara from arranging this surprise visit through the internet.

I think that the first GIREP meeting that I attended was in Copenhagen in 1973 and the last was in Torun in 1991. The Torun meeting was my first visit to Poland and it was a very special occasion for me. The topic was “Frames of Reference – from Copernicus to Einstein” and was wonderful that we were holding a meeting on this subject in the city of Copernicus .

Membership of GIREP was very important for me in the development of my career. In the early seventies I had begun to change my interest from research in Physics to research in Physics Education, but had only worked with a few people in England until I went to my first GIREP conference. That conference was exciting and encouraging: I realised that there were many in other European countries who knew that Physics was a wonderful subject and wanted to help school pupils to share their fascination and wonder. Moreover, I learnt about many new ideas and in the next few years. I made many contacts that were valuable for my work

One of the many topics that I learnt about then have become alive again for me as I help with a new project of my colleagues in King's, funded by the European Union, which aims to revive the teaching of science inquiry. We asked some teachers to look at and think about a few everyday phenomena and then suggested that they choose one and ask their pupils to look at what is happening and then invite these pupils to suggest why it is happening. Then they are to give pupils free use of the laboratory and to invent and try out their own experiments to test their hypotheses. At first, the teachers were not sure that this would work, and worried about their loss of control of a lesson.

However, after trying the approach they became enthusiastic, because they found that when pupils were left free to their own experimental tests, and then try them out, these pupils worked hard and argued hard about their work. Their pupils were now active and committed. They were not learning **about** science, they were **being scientists** and so sharing the wonder and delight that comes with exploring the world around them.

I hope we can all learn how to set young learners free to experience the joy of doing science – our first duty to them is not to teach them **about** the theories and methods which scientists have already established so they know about science. The first duty is to inspire them, by **doing** some science, to share the wonder and delight of scientific discovery, and then to help them to do it more effectively by using those theories and methods which are relevant to their inquiries.