ERDŐS CENTENNIAL
July 1-5. 2013. Budapest

Dear Mr. President, dear Guests, Colleagues, Ladies and Gentlemen!

On behalf of the Organizing Committee, it is my privilege and great pleasure to welcome the participants of this conference from all over the world.

This is the third time we are organizing a Paul Erdős (ERDŐS PÁL) conference in the building of the Hungarian Academy of Sciences.

The first was in 1996, one day after his funeral. At that one–day meeting our goal was to give an immediate short survey of his oeuvre, a demonstration of his unique role in mathematics in the past seven decades.

The second conference was three years later in 1999, when our primary aim was to cover as much as possible the full scope and richness of his mathematics and its impact.

Now, celebrating the 100th anniversary of his birth, our intention is to give a panorama of the monumental, enormous development originated in his mathematics, of the wide ranging influence of his work and to give some indication of possible trends in the future. Obviously the composition of the participants at this meeting is different. We are very glad that so many young mathematicians are here, very much in the spirit of Paul Erdős.

Thus, briefly, the first conference was about the past, the second about the past and the present, and this third one is about the past, the present and the future.

One of the organizing institutions, the host and the venue of all three conferences is the same, the Hungarian Academy of Sciences.

Let me thank at this point Professor József Pálinkás,

President of the Academy and the main patron of the conference for his special attention an support.

Let me add, that, incidentally, Erdős gave his inaugural address in this very same Ceremonial

Hall after being elected in 1956 as a Member of the Academy.

Let me say a few words about the characteristics of Erdős' mathematics. A special trait was his unparalleled power of formulating and posing problems and conjectures. He must have had a special sense for good problems . How else can we explain that many of his innocent looking problems open up new areas, in some cases after several decades? Both will be demonstrated many times at the conference .

Another characteristic of his mathematics was that very often his questions and proofs reveal deep relationships between different areas in mathematics that could not have been foreseen. Again, we will see many examples of this.

Now a few words about the main topics of his mathematics and implicitely about the program of this conference.
Erdős started out as a number theorist. Discovering

the combinatorial nature of some of his early number theory problems led him to general questions in combinatorics, in graph theory. His set theory also often arose from combinatorics as infinite versions of finite cases and his results and problems in geometry and algebra also have a combinatorial flavor.

He was one of the initiators of probabilistic number theory and he used the methods and principles of probability throughout his work. The probabilistic method and the Erdős-Rényi theory of random graphs are major examples. He also worked in pure probability theory.

Speaking of a newer subject, although he was never directly involved in it, he had an essential influence on computer science, especially through the probabilistic method.
Analysis, approximation,interpolation and polynomialsin particular were also in the foreground of his research from the 30's through the 60's. His analytic power is felt in his papers all along.

Just as Erdős' personality showed through each time he spoke about mathematics, it is impossible to talk about his mathematics without touching very briefly upon his personality. I just mention one quote from one of his letters in 1976: `Six in the morning, the house is still asleep and I listen to lovely music, while writing and conjecturing.' The Hungarian original is quite poetic and it is hard to give its flavor in English.

When Erdős was 20, I. Shur called him `der Zauberer von Budapest' (magician). He was also called the `Mozart of Mathematics', the `occidental Ramanujan' and `the Euler of the 20th century'. One might wonder who will be called the `Erdős of the 21st century'?

In closing, let me wish everybody a successful, pleasant conference.

Vera T.Sós

Chair of the Conference