Contributions to Discrete Mathematics

Volume 3, Number 1, Pages 3–5
ISSN 1715-0868

FERENC KÁRTESZI (1907–1989): A SHORT BIOGRAPHY

GÁBOR KORCHMÁROS AND TAMÁS SZŐNYI

Ferenc Kárteszi was born in a very small village Nyilasbesnyő, near Cegléd. He attended the Pázmány Péter University in Budapest (today called Eötvös Loránd University). During his university studies his father and brother died and he was forced to interrupt his studies for one year. Two professors of the Technical University, Lajos Romsauer and József Kürschák helped him with a scholarship and he was awarded his university degree in 1930. Already in the secondary school he had organized a students circle in mathematics and from 1925 he published several papers in *Középiskolai Matematikai és Fizikai Lapok*, the *Secondary School Mathematics and Physics Journal*. Later he was also involved in editing the journal until 1939.

He worked for a short period as an assistant professor at the Technical University and then taught at the Scientific Lyceum in Győr from 1931 until 1940. His ars poetica as a teacher was to teach students to understand the process of how theorems were discovered, not just presenting the final formulations. Several distinguished mathematicians, the algebraist Tibor Szele for example, said that he was influenced by the "problem poetry" of Kárteszi. His problems were always "real problems" not just difficult exercises. Kárteszi defended his PhD thesis "On the ten conics determined by six points lying on a conic and the corresponding configurations" in 1933 at Pázmány Péter University, Budapest. After publishing two papers in the *Bollettino dell'Unione Matematica Italiana* in 1935 he won a scholarship to visit the University of Bologna (Italy) in 1936-37. In this period he worked with Beppo Levi and Beniamino Segre.

World War II was a particularly difficult period for Kárteszi. He was involved in active service as a soldier several times during the war and then he was prisoner of war but even in this difficult period he was active mathematically. In the rare periods when he was not in the army, he studied the unpublished mathematical work of the two Bolyais in Transsylvania, and edited a didactic journal *Matematikai és Természettudományi Didaktikai Lapok* with Pál Veress, György Alexits, and György Hajós.

He became Professor at Eötvös Loránd University (1950), and was head of the Department of Descriptive and Projective Geometry (from 1951 to 1976), Dean of the Faculty of Science (1951–54) and later Prorector (1958–62). He retired in 1977 after 48 years of service.

His main fields of interest were the didactics of mathematics and everything connected to geometry. He published papers in classical geometry, projective geometry, (classical) algebraic geometry, discrete and combinatorial geometry, elementary and descriptive geometry, combinatorics, finite geometry, foundations of geometry. He edited and commented the Appendix by János Bolyai, see [1] for the English edition. He was always a devoted teacher, and even his mathematical works contain didactic ideas. He always looked out for problems that could be formulated for a secondary school student and illustrate an important mathematical idea. He published about 120 papers in mathematics and the didactics of mathematics and wrote 11 books.

As mentioned in the Preface, his main mathematical interest from the late fifties was finite geometry. In this period he was able to renew his friendship with Beniamino Segre and gave several lectures in Italy. Some of the authors of the present special issue attended his talks in Bari or Potenza in the eighties.

He was a founding member of the János Bolyai Mathematical Society and the Italian Mathematical Society. Indeed, the János Bolyai Mathematical Society was founded in 1947 in Kárteszi's flat and held its meetings there for a couple of years, always on Thursdays. When there was no meeting of the Bolyai Society, a coded message appeared on the noticeboard of the mathematics departments: "There will be no Thursday next Thursday". He received the Manó Beke Prize of the Bolyai Society in 1956.

His book *Introduction to Finite Geometries* [2] gives the reader an impression how mathematics and didactics are connected in his works, and also shows which parts of finite geometry he liked the most. The first named guest editor of this volume was a student of Kárteszi when he wrote this book, while the other editor learnt finite geometry from the book.

Let us list those professors who influenced Kárteszi's mathematics the most: Lipót Klug, József Kürschák, György Alexits, Beppo Levi and above all Beniamino Segre.

We hope that this special issue shows the influence of Kárteszi on the Hungarian and Italian schools of finite geometry. Let us mention that among the authors of this special issue there are several grandchildren and one great grandchild of Kárteszi, of course, in the mathematical sense.

In preparing this short biography we used [4], [3] and the interview of Gyula Staar [5] with Professor Kárteszi.

References

1. J. Bolyai, *Appendix, the theory of space. with introduction, comments, and addenda*, North Holland Math. Studies, vol. 138, Akadémiai Kiadó, 1987.
2. F. Kárteszi, *Introduction to finite geometries*, Akadémiai Kiadó, 1972, reprinted in English by Elsevier/North Holland, 1976, in Italian by Feltrinelli, 1978, and in Russian by Nauka, 1980.
3. J. Merza and O. Varga, *Ferenc Kárteszi is 60 years old*, Mat. Lapok (1967), 273–282, in Hungarian.

4. E. Molnár, *Kárteszi Ferenc (Nyilasbesnyő, 1907. febr. 13. - Budapest, 1989. máj. 9.)*, `http://www.kfki.hu/physics/historia/karteszi/karteszipant.html`, in Hungarian.
5. Gy. Staar, *A tudóstanár, interview with Professor Ferenc Kárteszi*, Természet Világa (1983), 253–256, in Hungarian.

Dipartimento di Matematica e Infromatica,
Universitá degli Studi della Basilicata, Contrada Macchia
Romana, I-85100 Potenza, Italy
E-mail address: `korchmaros@unibas.it`

Department of Computer Science, Eötvös Loránd University,
H-1117 Budapest, Pázmány P. sétány 1/C, Hungary
and
Computer and Automation Research Institute,
Hungarian Academy of Sciences,
H-1111 Budapest, Lágymányosi u. 11, Hungary
E-mail address: `szonyi@cs.elte.hu`