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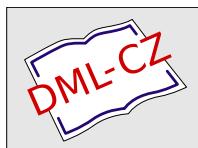
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Professor Karel Svoboda (1918 - 1997)

Karel Svoboda, Doctor of Natural Science, the ordinary professor of mathematics at the Faculty of Science of the Masaryk University in Brno and the founding member of the editorial board of Archivum Mathematicum, died on August 19, 1997.

Karel Svoboda was born on December 9, 1918 in Kunovice (Moravia, Czech Republic). His studies of mathematics and descriptive geometry at the Masaryk University in Brno were interrupted by the nacist's occupation and the closing of Czech universities on November 17, 1939. Karel Svoboda was transported into the concentration camp at Sachsenhausen where he spent more than half a year. During the rest of the nacist's occupation he was employed as a worker. In 1945, after the war, he finished his study and he became a lecturer (1945), an associated professor (1959) and an ordinary professor (1963) at the Masaryk University.

The first research papers by Svoboda were inspired by his teachers, L. Seifert and O. Borůvka. About 1937 L. Seifert studied systematically the polar theory of cubic hypersurface J in fourdimensional projective space from the viewpoint of classical synthetic geometry. In [2] and [5], Svoboda discussed in detail the case J contains a double rational normal curve of fourth degree. In early thirties O. Borůvka, under the direct influence of É. Cartan and by using the moving frame method, wrote a famous series of papers on twodimensional surfaces in n -dimensional space of constant curvature. Continuing in such a research, Svoboda first solved the existence problem for the surfaces with locally spherical indicatrix of normal curvature in fivedimensional space of constant curvature, [1]. In [3] and [4], interesting metric properties of the Veronese surface are deduced in a similar

way. The fundamental paper [7] and its supplement [9] study the surfaces in an arbitrary space of constant curvature with the property that a prescribed number of the indicatrices of normal curvature at each point are circles. Further, in [6] and [8] Svoboda deduced necessary and sufficient conditions for a surface in projective space to be realisable in a space of constant curvature of the same dimension with prescribed metric properties.

To a joint research with V. Havel and I. Kolář, [11], Svoboda contributed mainly with his deep knowledge of the moving frame method. The starting point were some results by R. N. Šcerbakov and his coworkers on the application of the Cartan's methods to the investigation of non-holonomic submanifolds. The paper [11] extends these results to systems of submanifolds, the net on surface being the simplest example.

The most important papers by Svoboda deal with line congruences, i.e. with twoparameter families of straight lines. The deformation theory of line congruences in projective spaces was established by E. Čech in early fifties and further developed by A. Švec. The first research by Svoboda in this field was devoted to stratifiable cycles of line congruences in odd-dimensional projective spaces, [10]. Then he deduced fundamental results on the deformation of line congruences in symplectic spaces, [12], [13], [14], [15]. In [21] he discussed the developable correspondences between line congruences in symplectic spaces from the deformation point of view. With this extended experience in the deformation theory Svoboda came back to the projective case. He completed several results by Čech and Švec in the case of higher dimensional projective spaces, where the higher order osculating spaces came into the game, [18], [19], [20].

Parallel to these activities, Svoboda studied the pseudocongruences in the sense of R. M. Gejdel'man, i.e. n -parameter families of $(n - 1)$ -dimensional linear subspaces in projective space of dimension greater or equal to $(2n - 1)$. In [16] he investigated the point deformations of completely focal pseudocongruences. Then he deduced several relations of the developable correspondences to various kinds of deformations, [17], [22].

In the personality of Professor Karel Svoboda high scientific qualification was closely connected with pedagogical mastership. He educated a great number of Czech geometers of today. All his pupils remember Professor Karel Svoboda not only as an excellent scientist, and an extraordinary teacher, but also as an outstanding person with very significant impression on their careers.

Josef Janyška, Ivan Kolář

List of scientific papers by Prof. RNDr. Karel Svoboda, CSc.

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