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(*b*. Kamenets-Podolsk [now Ukrainian S. S. R.], 15 June 1894; *d*. Moscow, U. S. S.R., 2 July 1947),

mathematics.

Chebotaryov became fascinated by mathematics while still in the lower grades of the Gymnasium. In 1912 he entered the department of physics and mathematics at Kiev University. Beginning in his second year at Kiev, Chebotaryov participated in a seminar given by D.A. Grave which included O. Y. Schmidt, B. N. Delaunay, A.M. Ostrowski and others. Chebotaryov's scientific interests took definite shape in this group. After graduating from the university in 1916, he taught and did research.

From 1921 to 1927 Chebotaryov taught at Odessa, where he prepared a paper on Frobenius' problem; he defended this paper as a doctoral dissertation in Kiev in 1927. In that year he was appointed a professor at Kazan University. In January 1928, he assumed his post at the university, where he spent the rest of his life and where he founded his own school of algebra. In 1929 Chebotaryov was elected a corresponding member of the Academy of Sciences of the Union of Soviet Socialist Republics, and in 1943 the title Honored Scientist of the Russian Soviet Federated Socialist Republic was conferred upon him. For his work on the theory of resolvents he was posthumously awarded the State Prize in 1948.

Chebotaryov's main works deal with the algebra of polynomials and fields (Galois's theory); the problem of resolvents (first raised by Felix Klein and David Hilbert)—that is, the problem of the transformation of a given algebraic equation with variable coefficients to an equation whose coefficients depend on the least possible number of parameters (1931 and later); the distribution of the roots of an equation on the plane (1923 and later); and the theory of algebraic numbers. In 1923 he published a complete solution to Frobenius' problem concerning the existence of an infinite set of prime numbers belonging to a given class of substitutions of Galois's group of a given normal algebraic field. This problem generalized Dirichlet's famous theorem concerning primes among natural numbers in arithmetic progressions. The method applied was utilized by E. Artin in 1927 in proving his generalized law of reciprocity. In 1934 Chebotaryov, applying the methods of Galois's theory and *p*-adic series, made significant advances toward a solution of the question—first posed by the ancient Greeks—of the possible number of lunes that are bounded by two circular arcs so chosen that the ratio of their angular measures is a rational number and that can be squared using only a compass and a straightedge. One of Chebotaryov's disciples, A. V. Dorodnov, completed the investigation of this famous problem in 1947. Chebotaryov also did work on the theory of Lie groups, in geometry (translation surfaces), and in the history of mathematics.

BIBLIOGRAPHY

I. Original Works. Chenotaryov's works may be found in the three-volume *Sobraie sochineny* ("Collected Works"; Moscow and Leningrad, 1949–1950).

II. Secondary Literature. More on Chebotaryov and his work is in *Nauka v SSSR za pvatnadtsat let*. *Matematika* ("Fifteen Years of Science in the U. S. S.R.: Mathematics"; Moscow-Leningrad, 1932), see index; and *Matematika v SSSR za tridtsat let* ("Thirty Years of Mathematics in the U.S.S.R."; Moscow-Leningrad, 1948), see index. *Matematika v SSSR za sorok let* ("Forty Years of Mathematics in the U. S. S.R."; Moscow-Leningrad, 1959), II, 747–750, contains a bibliography of Chebotaryov's works. An obituary of Chebotaryov is in *Uspekhi matematicheskikh nauk*, **2** no. 6 (1947), 68–71. See also V. V. Morozov, A. P. Norden, and B. M. Gagaev, "Kazanskaya matematicheskaya shkola za 30 let" ("Thirty Years of the Kazan School of Mathematics"), *ibid*., pp. 3–20; B. L. Laptev, "Matematika v Kazanskom universitete za 40 let (1917–1957)" ("Forty Years of Mathematics at Kazan University"), in *Istoriko-matematicheskie issledovania*, **12** (1959), 11–58; and *Istoria otechestrennoi matematiki* ("History of Native [Russian] Mathematics"), vols. II-III (Kiev, 1967–1968), see index.

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