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(*b*. Forli, Italy, 8 November 1846; *d*. Pisa, Italy, 24 February 1933)

mathematics

In 1863 Bertini registered at the University of Bologna, intending to study engineering, but after taking the course taught by Luigi Cremona, he turned to pure mathematics. In 1866 he fought with Garibaldi in the third war for Italian independence. On the advice of Cremona, he resumed his studies and transferred to the University of Pisa, from which he received his degree in mathematics in 1867. During the academic year 1868–1869 he attended the course in Milan taught by L. Cremona, F. Brioschi, and F. Casorati. This course, dealing with Abel's integrals, exerted considerable influence on Bertini's own research.

In 1870 Bertini began his teaching career in the secondary schools of Milan, and in 1872 taught in Rome. There, on the recommendation of Cremona, he was appointed a special lecturer to teach descriptive and projective geometry. In 1875 he accepted the professorship of advanced geometry at the University of Pisa. From 1880 to 1892 he taught at the University of Pavia, and then returned to his former professor ship at Pisa, a post he held until his retirement at the age of seventy-five. For the next ten years he taught an elective course in geometrical complements, which he had started as an introductory course to higher geometry.

Bertini's research deals particularly with algebraic geometry and constitutes definite progress in relation to the studies pursued by the school of Cremona. In this connection it is necessary to note that Cremona, having formulated the theory on plane and space transformations that bears his name, availed himself of the same transformations to change higher geometric figures into simpler figures and then apply to the higher figures the properties of the simpler ones. Bertini studied the geometric properties that remain constant during such transformations. He conceived the idea of exploring this field after studying the problem of the classification of plane involutions. In 1877 he succeeded in determining the various types, irreducible from each other, in which the planar in volutions may be reduced through Cremona's transformations. His treatises are noteworthy for their order and clarity.

BIBLIOGRAPHY

I. Original Works. Bertini's works include "La geometria delle serie lineari sopra una curva piana, secondo il metodo algebrico," in *Annali di matematica pura ed applicata*, 2nd ser., **22** (1894), 1–40; *Introduzione alla gemetria proiettiva degli iperpazi* (Pisa, 1906; Messina, 1923); and *Complementi di geometria proiettiva* (Bologna, 1927).

II. Secondary Literature. More information on Bertini may be found in G. Castelnuovo, "Commemorzione del socio Eugenio Bertini," in *Atti della Reale Accademia nazionale dei Lincei. Rendiconti*, Classe di scienze fisiche, matematiche e naturali, 6th ser., **17** (1933), 745–748; and F. Enriques, *Le matematiche nella storia e nella cultura* (Bologna, 1938), pp. 284, 286, 287, 292.

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