

Hoüel, Guillaume-Jules | Encyclopedia.com

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(b. Thaon, Calvados, France, 7 April 1823; d. Périers, near Caen, France, 14 June 1886)

mathematics, astronomy.

Born into one of the older Protestant families of Normandy, Hoüel studied at Caen and the Collège Rollin before entering the École Normale Supérieure in 1843. He received his doctorate from the Sorbonne in 1855 for research in [celestial mechanics](#) and held the chair of pure mathematics at the Faculty of Sciences in Bordeaux from 1859 until his death.

Hoüel's reputation rests primarily on the quality and quantity of his activities in mathematical exposition. His gift for languages was used to evaluate and frequently to expound or translate important foreign mathematical writings. In the theory of complex numbers Hoüel introduced many of his countrymen to the researches of William R. Hamilton, Hermann Grassmann, Giusto Bellavitis, and [Bernhard Riemann](#) through his *Theorie élémentaire des quantités complexes* and other writings. of greater importance were his successful efforts to overcome the long-standing failure of mathematicians to appreciate the significance of [non-Euclidean geometry](#). Led by his own research to doubt the necessity of the parallel postulate and by Richard Baltzer to the writings of Lobachevski, Hoüel published in 1866 a translation of one of the latter's essays along with excerpts from the Gauss-Schumacher correspondence. By 1870 he had published translations of the classic writings in this area of János Bolyai, Beltrami, Helmholtz, and Riemann as well as his own proof of the impossibility of proving the parallel postulate. Hoüel also compiled logarithmic tables, worked on planetary perturbation theory, was an editor of the *Bulletin des sciences mathématiques et astronomiques*, and wrote a major text in analysis, *Cours de calcul infinitésimal*.

BIBLIOGRAPHY

I. Original Works. A bibliography of 131 items is given in Brunel (see below). His books include *Theorie élémentaire des quantités complexes* (Paris, 1874); and *Cours de calcul infinitésimal*, 4 vols. (Paris, 1878–1881).

II. Secondary Literature. Most useful is G. Brunel, "Notice sur l'influence scientifique de Guillaume-Jules Hoüel," in *Mémoires de la Société des sciences physiques et naturelles de Bordeaux*, 3rd ser., **4** (1888), 1–78. Obituary notices are *Leopoldina*, **22** (1886), 167–168; and G. Lespiault, in *Mémorial de l'Association des anciens élèves de l'École normale supérieure* (Paris, 1887). See also Paul Barbarin, "La correspondance entre Hoüel et de Tilly," in *Bulletin des sciences mathématiques*, 2nd ser., **50** (1926), 50–64, 74–88.

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