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(*b*. Villefranche-sur-Saône, France, 15 August 1882; *d*. Paris. France, 9 March 1955),

celestial mechanics.

The author of a thesis on differential equations of the third and higher orders, which he defended at the Sorbonne on 22 December 1910, Chazy seemed destined for very specialized work in the field of analysis. His services in sound ranging during World War I revealed his gifts as a calculator; and his *ciatation à l'ordre de l'Armée*, which praised his remarkable accuracy in determining the position of the Big Bertha cannons that fired on Paris in May-June 1918, assured him the respect of his colleagues and students. Among those who took Chazy's course in classical mechanics between 1930 and 1940, very few suspected that they had a teacher distinguished by a rather uncommon quality, the ability to change his field. A mathematician familiar with the problems of analysis and also gifted with a very fine awareness of numerical problems, he did great work in celestial mechanics.

Chazy was born into a family of small provincial manufacturers. After brilliant secondary studies at the *collège* of Mâcon and then at the *lycée* in Dijon, he entered the École Normale Supérieure in 1902. The *agrégation* in mathematical sciences in 1905 directed him immediately toward research in the field of differential equations; Paul Painlevé had recently obtained beautiful results in this area, and Chazv hoped to extend them. A lecturer first at Grenoble, then at Lille after his doctoral thesis in 1910, he returned to the Faculty of Sciences in Lille as a professor at the end of the war. Appointed to the Sorbonne in 1925, he was given the course in mechanics in 1927 and assumed in succession the chair of rational mechanics and then, until his retirement in 1953, those of analytical mechanics and celestial mechanics. He was elected a member of the astronomy section of the Académie des Sciences on 8 February 1937, and became a titular member of the Bureau des Longitudes in 1952.

Chazy's scientific work had been associated with the Academy since 1907, and the long list of his communications in its *Comptes rendus* reveals both his development and the importance of his works in his field of specialization. In 1912 he shared the Grand Prix des Sciences Mathématiques with Pierre Boutroux and René Garnier for work on perfecting the theory of second- and third-order algebraic differential equations whose general integral is uniform. In 1922 Chazy received the Prix Benjamin Valz for his work in celestial mechanics, particularly for his memoir "Sur l'allure du mouvement dans le problème des trois corps quand le temps croît indéfiniment."

Beginning in 1919, Chazy applied to the famous three-body problem of Newtonian mechanics the mastery he had acquired in the study of the singularities of solutions to differential equations when the initial conditions vary. He was able to determine the region of the twelve-dimensional space defined by the positions and velocities of two of the bodies relative to the third within which the bounded trajectories can only exist—and thus to achieve a representation of planetary motions.

In 1921 Chazy became interested in the theory of relativity, to which he devoted two important works. He became famous through his critique of Newcomb's calculations for the advance of the perihelion of Mercury, considered in the framework of Newtonian theory, and furnished for this secular advance a value that was later confirmed as very nearly correct by the powerful mechanical calculation developed by Gerald Clemence in 1943–1947.

He foresaw the necessity of attributing a speed of propagation to attraction, and when this new conception was affirmed as a consequence of relativity, he devoted a substantial amount of work to it, utilizing with good results the notion of isothermal coordinates, first perceived by Einstein in 1916 and determined exactly by Georges Darmois in 1925–1927.

While penetrating in an original and profound way the field of research opened by the relativity revolution, Chazy nevertheless remained a classically trained mathematician. With solid good sense, he held a modest opinion of himself. The reporters of his election to the Academy were, however, correct to stress how much, in a period of crisis, celestial mechanics needed men like him, who were capable of pushing to its extreme limits the model of mathematical astronomy that originated with Newton. Thus, beyond the lasting insights that Chazy brought to various aspects of the new theories, his example remains particularly interesting for the philosophy of science.

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