

# Biographical Encyclopedia of Astronomers

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Tisserand, François-Félix

Born Nuits-Saint-Georges, Côte d'Or, France, 13 January 1845

Died Paris, France, 20 October 1896

François-Félix Tisserand, known by his first name Félix, was born in the Burgundy region known for growing good wine. He and his brother were the sons of a cooper who died when Félix was still young. Tisserand entered the École Normale Supérieure when he was 18, graduating first in his class. At that time, Urbain Le Verrier was the director of the Paris Observatory. Le Verrier recruited the bright Tisserand to find errors in Charles Delaunay's lunar theory.

After passing his *Doctorat d'Etat* in 1868, Tisserand showed particular interest and value in the field of celestial mechanics. On the other hand, he was participating in astronomical expeditions such as the solar eclipse of 1868 and the transits of Venus in 1874 and 1882

In 1873, Tisserand was appointed director of the Toulouse Observatory, reorganizing and re-equipping it so that it became a valuable astronomical center. In 1878, he was asked to teach celestial mechanics at the Sorbonne, Paris. Tisserand soon became a specialist in this subject, establishing what is called the "Tisserand criterion," used to determine whether a comet is new or returning. He became director of the Paris Observatory in 1892, following his predecessor, Admiral Ernest Mouchez, particularly with regard to the international project, the *Carte du Ciel*

Since the celebrated *Principia* by Isaac Newton and the *Mécanique céleste* by Pierre de Laplace one century earlier, nothing of great value had been published in the general field of celestial mechanics during the 19th century. The *Traité de mécanique céleste*, rigorously and clearly written by Tisserand, was published in four volumes, the last one appearing the year he died. Volumes I and II of his *Traité* were reedited in 1960, as was the complete set in 1990. After reading Newton and Laplace, specialists must read Tisserand to best understand Jules Henri Poincaré and Albert Einstein.

Tisserand was married twice. His first spouse died soon after their daughter was born. He had two more daughters from his second marriage

In 1878, Tisserand succeeded Le Verrier as a member of the Académie des sciences. He was appointed as a member of the Bureau des longitudes in 1878.

*Suzanne Débarbat*

## Selected References

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