



Comte Joseph Louis Lagrange

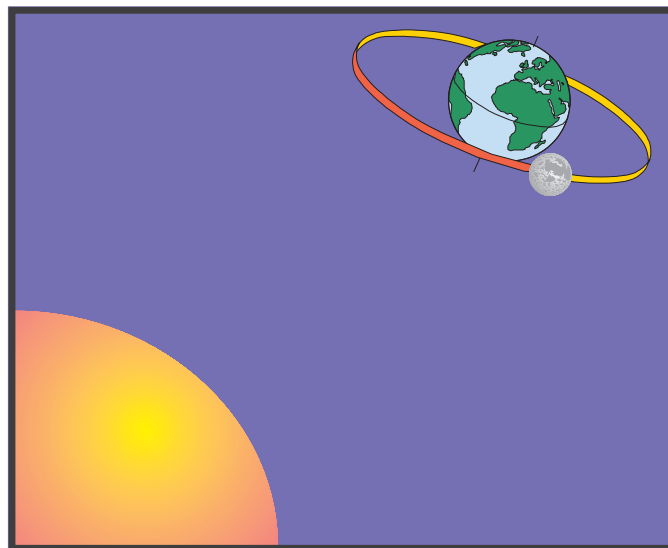
1736 - 1813

Comte Joseph Louis Lagrange is famous for his work on mathematics and theoretical mechanics. Lagrange also made many contributions to astronomy, number theory and the theory of the nature of sound.

Lagrange was born in Turin, in 1736. His father was of French origin and he worked in the Treasury Office; originally he was wealthy, but he lost his money in financial speculation. Lagrange's mother was the daughter of a wealthy Italian physician. Lagrange himself was the youngest of eleven children and the only one to survive. Almost self educated, Lagrange at eighteen years of age was teaching at the Royal Artillery School at Turin and soon he became professor of mathematics there. It was also there that Lagrange organized the scientific group, which later became the famous Turin Academy of Sciences.

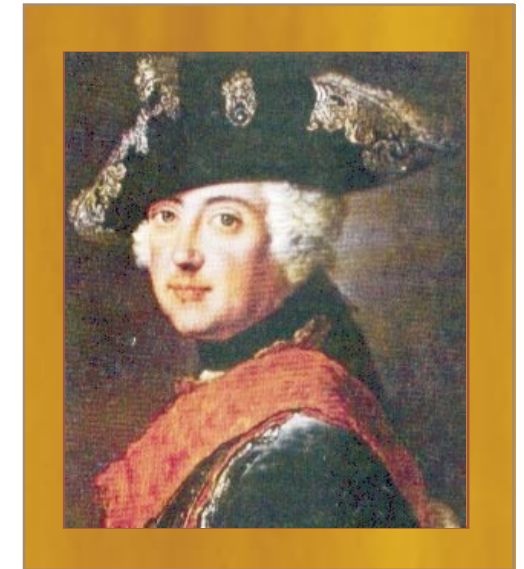
In 1756, he sent a letter describing his work on the calculus of variation to Leonhard Euler, the famous mathematician in Berlin. Euler was very excited by his results, and, realizing the significance of this work, supported Lagrange's election to the Berlin Academy in 1759.

By 1760 Lagrange's reputation as one of Europe's greatest mathematicians was established. In 1764 he received a Grand Prix from the Paris Academy of Sciences for his the work on the famous three-body problem of the mutual gravitational attraction of the Earth, the sun and the moon.



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*King Frederick
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In 1766, when Euler left Berlin, King Frederick the Great arranged for Lagrange to take the vacant post. In his invitation (being very modest !) the King wrote: 'It is necessary that the greatest geometer of Europe should live near the greatest King'. For the next twenty years Lagrange was director of the mathematics section of the Berlin Academy.

In 1772, he described the '**Lagrangian points**', the points in the plane of two objects in orbit around their common center of gravity at which the combined gravitational forces are zero, and hence where a third particle of negligible mass can remain at rest.

Unfortunately, his health broke down through overwork, and thereafter he suffered sometimes from periodic attacks of acute depression.

Following Frederick's death, in 1787, he moved to Paris at the invitation of Louis XVI. There he produced his monumental treatise *Mecanique Analytique* (1788).

Under Napoleon he became a Senator and a Count. In 1793, he worked on establishing the French metric system, a system that is used throughout most of the world today. He founded the mathematics department in the École Normale in 1795 and later in the École Polytechnique.

Lagrange was considered by his contemporaries as a shy and modest person. As he grew older, he became overanxious about his health. He never drank alcohol and was a vegetarian. His first wife died and he remarried when he was 56. His second wife was the teenage daughter of his friend. His new bride was devoted to him.

After his death, in recognition of his achievements, he was buried in the Pantheon, in Paris.
S.E.