

In 1801, a Sicilian astronomer Giuseppe Piazzi discovered a faint star-like object, which disappeared in the glare of the Sun after six weeks of observations. A year later, the object named Ceres was rediscovered thanks to calculations provided by Carl Friedrich Gauss. This thesis aims to present the full process of Gauss's contribution to the discovery of Ceres with focus on elementary and straightforward mathematical language. We introduce some basic notions and properties concerning elliptical orbits and develop a thorough account of Gauss's calculations. We also provide justification for multiple unexplained steps in the method.